SURFACE MOUNT LED LAMPS

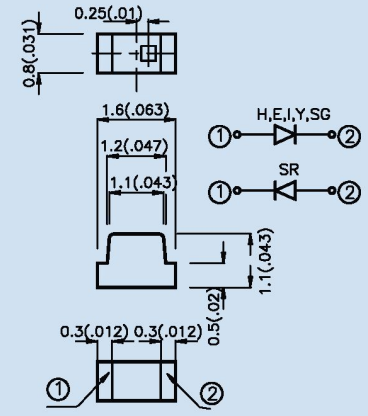
Kingbright®

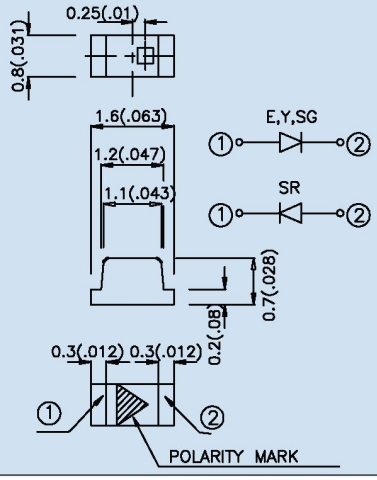
KP-1608

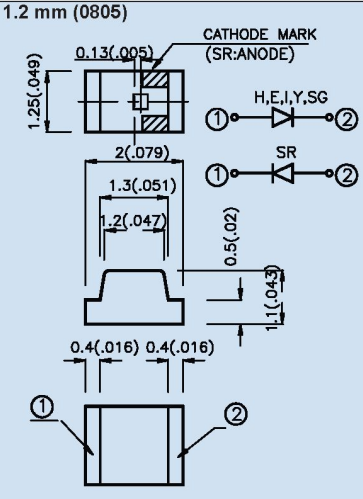
KPT-1608

KP-2012

Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
KP-1608HD	GaP	700	red diffused	0,8	1,25	120°	1.6 mm x 0.8 mm (0603)
KP-1608HT	GaP	700	red transparent	0,8	1,25	120°	
KP-1608HC	GaP	700	water clear	0,8	1,25	120°	
KP-1608ID	GaAsP/GaP	625	red diffused	5	12,5	120°	
KP-1608IT	GaAsP/GaP	625	red transparent	5	12,5	120°	
KP-1608EC	GaAsP/GaP	625	water clear	5	12,5	120°	
KP-1608SGD	GaP	565	green diffused	3,2	12,5	120°	
KP-1608SGT	GaP	565	green transparent	3,2	12,5	120°	
KP-1608SGC	GaP	565	water clear	3,2	12,5	120°	
KP-1608YD	GaAsP/GaP	590	yellow diffused	3,2	8	120°	
KP-1608YT	GaAsP/GaP	590	yellow transparent	3,2	8	120°	
KP-1608YC	GaAsP/GaP	590	water clear	3,2	8	120°	
KP-1608SRD	GaAlAs	660	red diffused	40	70	120°	
KP-1608SRT	GaAlAs	660	red transparent	40	70	120°	
KP-1608SRC	GaAlAs	660	water clear	40	70	120°	
KP-1608SYD	InGaAlP	595	yellow diffused	40	60	120°	
KP-1608SYT	InGaAlP	595	yellow transparent	40	60	120°	
KP-1608SYC	InGaAlP	595	water clear	40	60	120°	
KPT-1608HD	GaP	700	red diffused	0,8	1,25	120°	1.6 mm x 0.8 mm x 0.75 mm (0603 Super Thin)
KPT-1608HT	GaP	700	red transparent	0,8	1,25	120°	
KPT-1608HC	GaP	700	water clear	0,8	1,25	120°	
KPT-1608ID	GaAsP/GaP	625	red diffused	5	12,5	120°	
KPT-1608IT	GaAsP/GaP	625	red transparent	5	12,5	120°	
KPT-1608EC	GaAsP/GaP	625	water clear	5	12,5	120°	
KPT-1608SGD	GaP	565	green diffused	3,2	12,5	120°	
KPT-1608SGT	GaP	565	green transparent	3,2	12,5	120°	
KPT-1608SGC	GaP	565	water clear	3,2	12,5	120°	
KPT-1608YD	GaAsP/GaP	590	yellow diffused	3,2	8	120°	
KPT-1608YT	GaAsP/GaP	590	yellow transparent	3,2	8	120°	
KPT-1608YC	GaAsP/GaP	590	water clear	3,2	8	120°	
KPT-1608SRD	GaAlAs	660	red diffused	40	70	120°	
KPT-1608SRT	GaAlAs	660	red transparent	40	70	120°	
KPT-1608SRC	GaAlAs	660	water clear	40	70	120°	
KPT-1608SYD	InGaAlP	595	yellow diffused	40	60	120°	
KPT-1608SYT	InGaAlP	595	yellow transparent	40	60	120°	
KPT-1608SYC	InGaAlP	595	water clear	40	60	120°	
KP-2012HD	GaP	700	red diffused	0,8	1,25	120°	2.0 mm x 1.2 mm (0805)
KP-2012HT	GaP	700	red transparent	0,8	1,25	120°	
KP-2012HC	GaP	700	water clear	0,8	1,25	120°	
KP-2012ID	GaAsP/GaP	625	red diffused	5	12,5	120°	
KP-2012IT	GaAsP/GaP	625	red transparent	5	12,5	120°	
KP-2012EC	GaAsP/GaP	625	water clear	5	12,5	120°	
KP-2012SGD	GaP	565	green diffused	3,2	12,5	120°	
KP-2012SGT	GaP	565	green transparent	3,2	12,5	120°	
KP-2012SGC	GaP	565	water clear	3,2	12,5	120°	
KP-2012YD	GaAsP/GaP	590	yellow diffused	3,2	8	120°	
KP-2012YT	GaAsP/GaP	590	yellow transparent	3,2	8	120°	
KP-2012YC	GaAsP/GaP	590	water clear	3,2	8	120°	
KP-2012SRD	GaAlAs	660	red diffused	40	70	120°	
KP-2012SRT	GaAlAs	660	red transparent	40	70	120°	
KP-2012SRC	GaAlAs	660	water clear	40	60	120°	
KP-2012SYD	InGaAlP	595	yellow diffused	40	60	120°	
KP-2012SYT	InGaAlP	595	yellow transparent	40	60	120°	
KP-2012SYC	InGaAlP	595	water clear	40	60	120°	



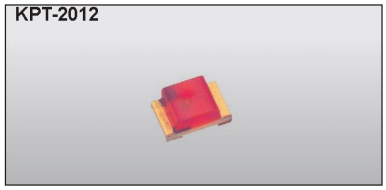




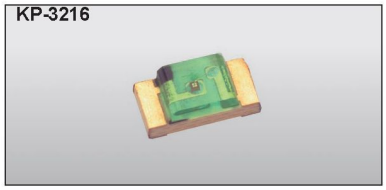
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

SURFACE MOUNT LED LAMPS

KPT-2012



KP-3216



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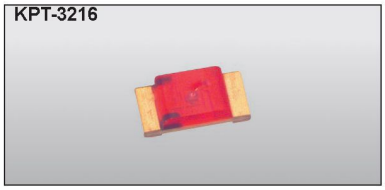
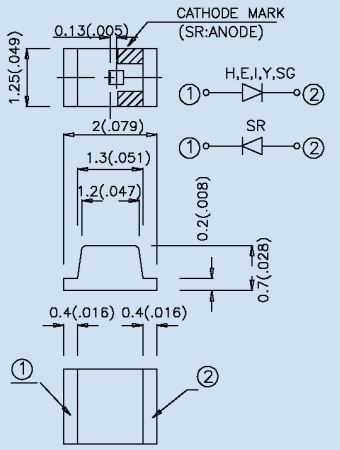
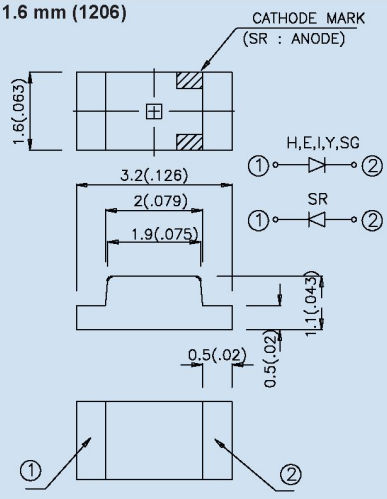


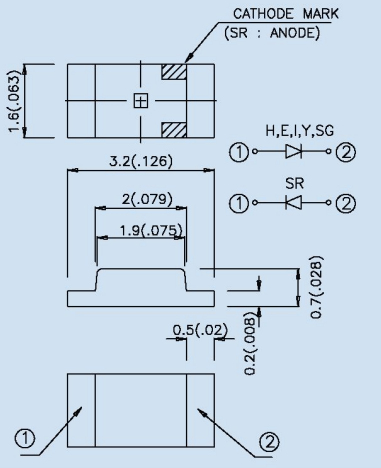
Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
KPT-2012HD	GaP	700	red diffused	0,8	1,25	120°	**2.0 mm x 1.2 mm x 0.75 mm (0805 Super Thin)**
KPT-2012HT	GaP	700	red transparent	0,8	1,25	120°	
KPT-2012HC	GaP	700	water clear	0,8	1,25	120°	
KPT-2012ID	GaAsP/GaP	625	red diffused	5	12,5	120°	
KPT-2012IT	GaAsP/GaP	625	red transparent	5	12,5	120°	
KPT-2012EC	GaAsP/GaP	625	water clear	5	12,5	120°	
KPT-2012SGD	GaP	565	green diffused	3,2	12,5	120°	
KPT-2012SGT	GaP	565	green transparent	3,2	12,5	120°	
KPT-2012SGC	GaP	565	water clear	3,2	12,5	120°	
KPT-2012YD	GaAsP/GaP	590	yellow diffused	3,2	8	120°	
KPT-2012YT	GaAsP/GaP	590	yellow transparent	3,2	8	120°	
KPT-2012YC	GaAsP/GaP	590	water clear	3,2	8	120°	
KPT-2012SRD	GaAlAs	660	red diffused	40	70	120°	
KPT-2012SRT	GaAlAs	660	red transparent	40	70	120°	
KPT-2012SRC	GaAlAs	660	water clear	40	70	120°	
KPT-2012SYD	InGaAlP	595	yellow diffused	40	60	120°	
KPT-2012SYT	InGaAlP	595	yellow transparent	40	60	120°	
KPT-2012SYC	InGaAlP	595	water clear	40	60	120°	



KP-3216HD	GaP	700	red diffused	0,8	1,25	120°	**3.2 mmx 1.6 mm (1206)**
KP-3216HT	GaP	700	red transparent	0,8	1,25	120°	
KP-3216HC	GaP	700	water clear	0,8	1,25	120°	
KP-3216ID	GaAsP/GaP	625	red diffused	5	12,5	120°	
KP-3216IT	GaAsP/GaP	625	red transparent	5	12,5	120°	
KP-3216EC	GaAsP/GaP	625	water clear	5	12,5	120°	
KP-3216SGD	GaP	565	green diffused	3,2	12,5	120°	
KP-3216SGT	GaP	565	green transparent	3,2	12,5	120°	
KP-3216SGC	GaP	565	water clear	3,2	12,5	120°	
KP-3216YD	GaAsP/GaP	590	yellow diffused	3,2	8	120°	
KP-3216YT	GaAsP/GaP	590	yellow transparent	3,2	8	120°	
KP-3216YC	GaAsP/GaP	590	water clear	3,2	8	120°	
KP-3216SRD	GaAlAs	660	red diffused	40	70	120°	
KP-3216SRT	GaAlAs	660	red transparent	40	70	120°	
KP-3216SRC	GaAlAs	660	water clear	40	70	120°	
KP-3216SYD	InGaAlP	595	yellow diffused	40	60	120°	
KP-3216SYT	InGaAlP	595	yellow transparent	40	60	120°	
KP-3216SYC	InGaAlP	595	water clear	40	60	120°	



KPT-3216HD	GaP	700	red diffused	0,8	1,25	120°	**3.2 mm x 1.6 mm x 0.75 (1206 Super Thin)**
KPT-3216HT	GaP	700	red transparent	0,8	1,25	120°	
KPT-3216HC	GaP	700	water clear	0,8	1,25	120°	
KPT-3216ID	GaAsP/GaP	625	red diffused	5	12,5	120°	
KPT-3216IT	GaAsP/GaP	625	red transparent	5	12,5	120°	
KPT-3216EC	GaAsP/GaP	625	water clear	5	12,5	120°	
KPT-3216SGD	GaP	565	green diffused	3,2	12,5	120°	
KPT-3216SGT	GaP	565	green transparent	3,2	12,5	120°	
KPT-3216SGC	GaP	565	water clear	3,2	12,5	120°	
KPT-3216YD	GaAsP/GaP	590	yellow diffused	3,2	8	120°	
KPT-3216YT	GaAsP/GaP	590	yellow transparent	3,2	8	120°	
KPT-3216YC	GaAsP/GaP	590	water clear	3,2	8	120°	
KPT-3216SRD	GaAlAs	660	red diffused	40	70	120°	
KPT-3216SRT	GaAlAs	660	red transparent	40	70	120°	
KPT-3216SRC	GaAlAs	660	water clear	40	70	120°	
KPT-3216SYD	InGaAlP	595	yellow diffused	40	60	120°	
KPT-3216SYT	InGaAlP	595	yellow transparent	40	60	120°	
KPT-3216SYC	InGaAlP	595	water clear	40	60	120°	

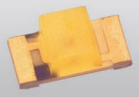


NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

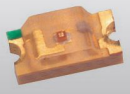
SURFACE MOUNT LED LAMPS

Kingbright®

KPTR-3216

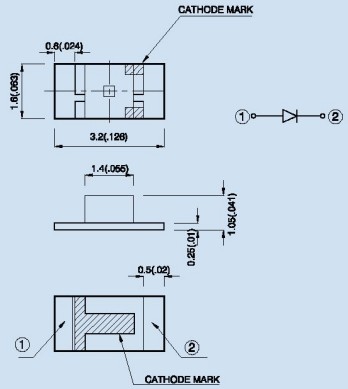


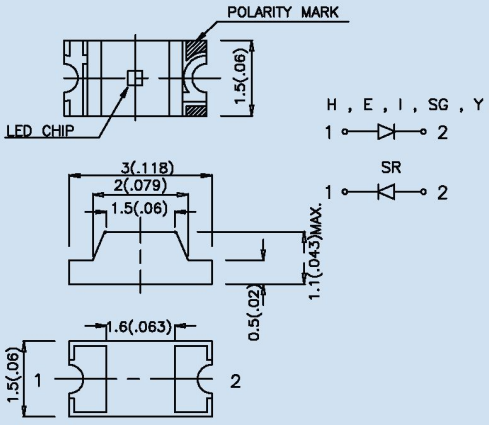
KP-3015

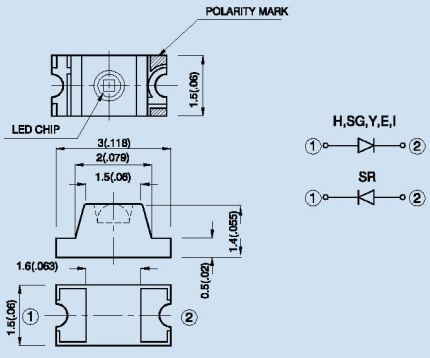


KPL-3015

Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
KPTR-3216HD	GaP	700	red diffused	0,8	1,25	120°	3.2 mm x1.6 mm x1.05 mm (1206 Reverse Angle)
KPTR-3216HT	GaP	700	red transparent	0,8	1,25	120°	
KPTR-3216HC	GaP	700	water clear	0,8	1,25	120°	
KPTR-3216ID	GaAsP/GaP	625	red diffused	5	12,5	120°	
KPTR-3216IT	GaAsP/GaP	625	red transparent	5	12,5	120°	
KPTR-3216EC	GaAsP/GaP	625	water clear	5	12,5	120°	
KPTR-3216SGD	GaP	565	green diffused	3,2	12,5	120°	
KPTR-3216SGT	GaP	565	green transparent	3,2	12,5	120°	
KPTR-3216SGC	GaP	565	water clear	3,2	12,5	120°	
KPTR-3216YD	GaAsP/GaP	590	yellow diffused	3,2	8	120°	
KPTR-3216YT	GaAsP/GaP	590	yellow transparent	3,2	8	120°	
KPTR-3216YC	GaAsP/GaP	590	water clear	3,2	8	120°	
KPTR-3216SRD	GaAlAs	660	red diffused	40	70	120°	
KPTR-3216SRT	GaAlAs	660	red transparent	40	70	120°	
KPTR-3216SRC	GaAlAs	660	water clear	40	70	120°	
KPTR-3216SYD	InGaAlP	595	yellow diffused	40	60	120°	
KPTR-3216SYT	InGaAlP	595	yellow transparent	40	60	120°	
KPTR-3216SYC	InGaAlP	595	water clear	40	60	120°	
KP-3015HD	GaP	700	red diffused	0,8	1,25	120°	3.0 mm x 1.5 mm (1106)
KP-3015HT	GaP	700	red transparent	0,8	1,25	120°	
KP-3015HC	GaP	700	water clear	0,8	1,25	120°	
KP-3015ID	GaAsP/GaP	625	red diffused	5	12,5	120°	
KP-3015IT	GaAsP/GaP	625	red transparent	5	12,5	120°	
KP-3015EC	GaAsP/GaP	625	water clear	5	12,5	120°	
KP-3015SGD	GaP	565	green diffused	3,2	12,5	120°	
KP-3015SGT	GaP	565	green transparent	3,2	12,5	120°	
KP-3015SGC	GaP	565	water clear	3,2	12,5	120°	
KP-3015YD	GaAsP/GaP	590	yellow diffused	3,2	8	120°	
KP-3015YT	GaAsP/GaP	590	yellow transparent	3,2	8	120°	
KP-3015YC	GaAsP/GaP	590	water clear	3,2	8	120°	
KP-3015SRD	GaAlAs	660	red diffused	40	70	120°	
KP-3015SRT	GaAlAs	660	red transparent	40	70	120°	
KP-3015SRC	GaAlAs	660	water clear	40	70	120°	
KP-3015SYD	InGaAlP	595	yellow diffused	40	60	120°	
KP-3015SYT	InGaAlP	595	yellow transparent	40	60	120°	
KP-3015SYC	InGaAlP	595	water clear	40	60	120°	
KPL-3015HD	GaP	700	red diffused	0,8	2	90°	3.0 mm x 1.5 mm (1106)
KPL-3015HT	GaP	700	red transparent	0,8	2	90°	
KPL-3015HC	GaP	700	water clear	0,8	2	90°	
KPL-3015ID	GaAsP/GaP	625	red diffused	5	16	90°	
KPL-3015IT	GaAsP/GaP	625	red transparent	5	16	90°	
KPL-3015EC	GaAsP/GaP	625	water clear	5	16	90°	
KPL-3015SGD	GaP	565	green diffused	5	16	90°	
KPL-3015SGT	GaP	565	green transparent	5	16	90°	
KPL-3015SGC	GaP	565	water clear	5	16	90°	
KPL-3015YD	GaAsP/GaP	590	yellow diffused	3,2	12,5	90°	
KPL-3015YT	GaAsP/GaP	590	yellow transparent	3,2	12,5	90°	
KPL-3015YC	GaAsP/GaP	590	water clear	3,2	12,5	90°	
KPL-3015SRD	GaAlAs	660	red diffused	40	80	90°	
KPL-3015SRT	GaAlAs	660	red transparent	40	80	90°	
KPL-3015SRC	GaAlAs	660	water clear	40	80	90°	
KPL-3015SYD	InGaAlP	595	yellow diffused	40	80	90°	
KPL-3015SYT	InGaAlP	595	yellow transparent	40	80	90°	
KPL-3015SYC	InGaAlP	595	water clear	40	80	90°	



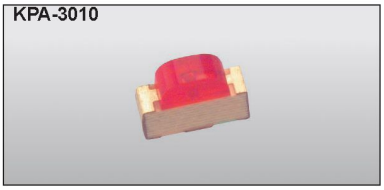




NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

SURFACE MOUNT LED LAMPS

KPA-3010



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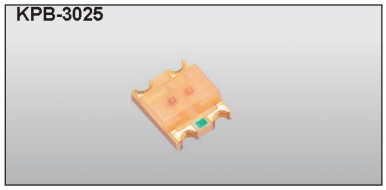

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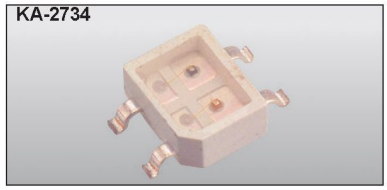


Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
KPA-3010HT	GaP	700	red transparent	0,8	1,25	120°	3.0 mm x 1.0 mm (1104 Right Angle)
KPA-3010HC	GaP	700	water clear	0,8	1,25	120°	
KPA-3010IT	GaAsP/GaP	625	red transparent	5	12,5	120°	
KPA-3010EC	GaAsP/GaP	625	water clear	5	12,5	120°	
KPA-3010SGT	GaP	565	green transparent	3,2	12,5	120°	
KPA-3010SGC	GaP	565	water clear	3,2	12,5	120°	
KPA-3010YT	GaAsP/GaP	590	yellow transparent	3,2	8	120°	
KPA-3010YC	GaAsP/GaP	590	water clear	3,2	8	120°	
KPA-3010SRT	GaAlAs	660	red transparent	40	70	120°	
KPA-3010SRC	GaAlAs	660	water clear	40	70	120°	
KPA-3010SYT	InGaAlP	595	yellow transparent	40	60	120°	
KPA-3010SYC	InGaAlP	595	water clear	40	60	120°	
KPB-3025ESGW	GaAsP/GaP	625	white diffused	5	12,5	120°	3.0 mm x 2.5 mm (1109 Bi-Colour)
	GaP	565		3,2	12,5		
KPB-3025ESGC	GaAsP/GaP	625	water clear	5	12,5	120°	
	GaP	565		3,2	12,5		
KPB-3025EYW	GaAsP/GaP	625	white diffused	5	12,5	120°	
	GaAsP/GaP	590		3,2	8		
KPB-3025EYC	GaAsP/GaP	625	water clear	5	12,5	120°	
	GaAsP/GaP	590		3,2	8		
KPB-3025SGYW	GaP	565	white diffused	3,2	12,5	120°	
	GaAsP/GaP	590		3,2	8		
KPB-3025SGYC	GaP	565	water clear	3,2	12,5	120°	
	GaAsP/GaP	590		3,2	8		
KA-2734ESGC	GaAsP/GaP	625	water clear	8	50	120°	2.7 mm x 3.4 mm
	GaP	565		8	50		
KA-2734SRSGC	GaAlAs	660	water clear	80	200	120°	
	GaP	565		8	50		

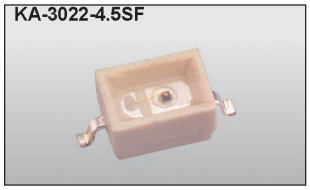
Caution! When operating both chips together, apply no more than 50% of the max. current to each chip. Refer to derating curve!

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

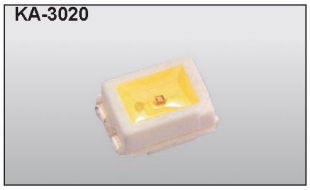
SURFACE MOUNT LED LAMPS

Kingbright®

KA-3022-4.5SF

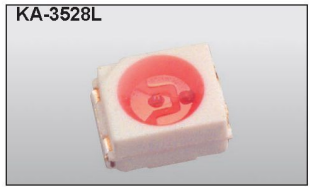


KA-3020

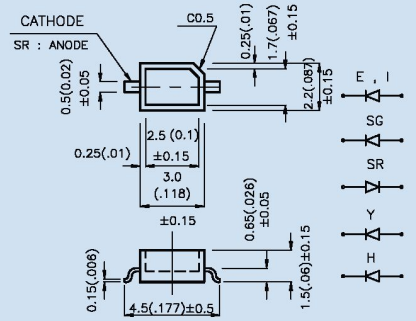


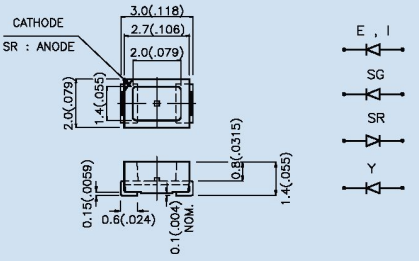
KA-3528

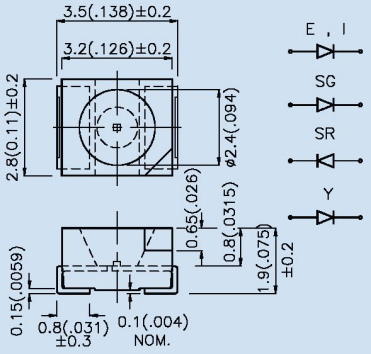
KA-3528L

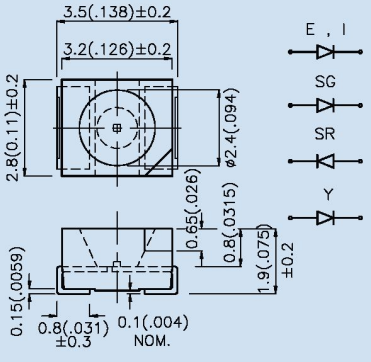


Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA *@2mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
KA-3022HC-4.5SF	GaP	700	water clear	1	4	90°	3.0 mm x 2.2 mm
KA-3022HT-4.5SF	GaP	700	red transparent	1	4	90°	
KA-3022EC-4.5SF	GaAsP/GaP	625	water clear	8	60	90°	
KA-3022IT-4.5SF	GaAsP/GaP	625	red transparent	8	60	90°	
KA-3022SGC-4.5SF	GaP	565	water clear	8	40	90°	
KA-3022SGT-4.5SF	GaP	565	green transparent	8	40	90°	
KA-3022YC-4.5SF	GaAsP/GaP	590	water clear	8	40	90°	
KA-3022YT-4.5SF	GaAsP/GaP	590	yellow transparent	8	40	90°	
KA-3022SRC-4.5SF	GaAlAs	660	water clear	70	300	90°	
KA-3022SRT-4.5SF	GaAlAs	660	red transparent	70	300	90°	
KA-3022SYC-4.5SF	InGaAlP	595	water clear	100	200	90°	
KA-3022SYT-4.5SF	InGaAlP	595	yellow transparent	100	200	90°	
KA-3020EC	GaAsP/GaP	625	water clear	8	60	90°	3.0 mm x 2.0 mm
KA-3020IT	GaAsP/GaP	625	red transparent	8	60	90°	
KA-3020SGC	GaP	565	water clear	8	40	90°	
KA-3020SGT	GaP	565	green transparent	8	40	90°	
KA-3020YC	GaAsP/GaP	590	water clear	8	40	90°	
KA-3020YT	GaAsP/GaP	590	yellow transparent	8	40	90°	
KA-3020SRC	GaAlAs	660	water clear	70	300	90°	
KA-3020SRT	GaAlAs	660	red transparent	70	300	90°	
KA-3020SYC	InGaAlP	595	water clear	100	200	90°	
KA-3020SYT	InGaAlP	595	yellow transparent	100	200	90°	
KA-3528EC	GaAsP/GaP	625	water clear	12,5	40	120°	3.5 mm x 2.8 mm
KA-3528IT	GaAsP/GaP	625	red transparent	12,5	40	120°	
KA-3528SGC	GaP	565	water clear	12,5	40	120°	
KA-3528SGT	GaP	565	green transparent	12,5	40	120°	
KA-3528YC	GaAsP/GaP	590	water clear	8	20	120°	
KA-3528YT	GaAsP/GaP	590	yellow transparent	8	20	120°	
KA-3528SRC	GaAlAs	660	water clear	70	300	120°	
KA-3528SRT	GaAlAs	660	red transparent	70	300	120°	
KA-3528LEC	GaAsP/GaP	625	water clear	0,8	2*	120°	3.5 mm x 2.8 mm
KA-3528LIT	GaAsP/GaP	625	red transparent	0,8	2*	120°	
KA-3528LSGC	GaP	565	water clear	0,8	2*	120°	
KA-3528LSGT	GaP	565	green transparent	0,8	2*	120°	
KA-3528LYC	GaAsP/GaP	590	water clear	0,5	0,8*	120°	
KA-3528LYT	GaAsP/GaP	590	yellow transparent	0,5	0,8*	120°	
KA-3528LSRC	GaAlAs	660	water clear	2	8*	120°	
KA-3528LSRT	GaAlAs	660	red transparent	2	8*	120°	





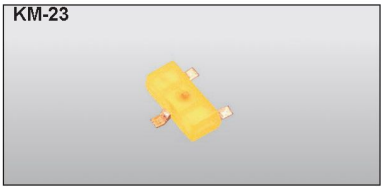




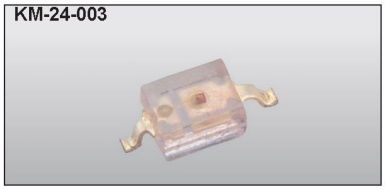
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

SURFACE MOUNT LED LAMPS

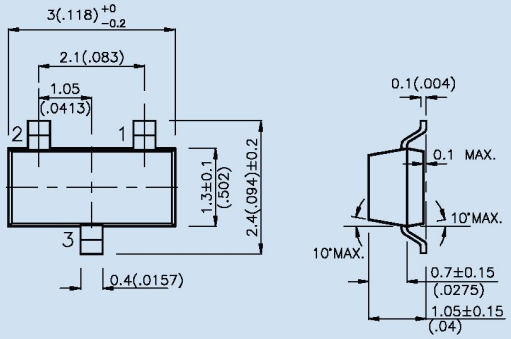
KM-23



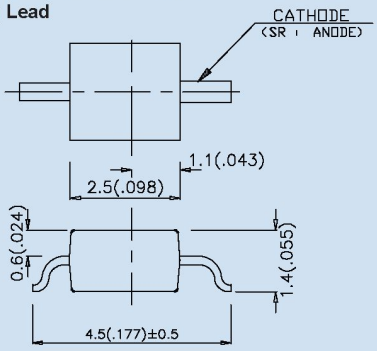
KM-24-003



Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
KM-23HD	GaP	700	red diffused	0,5	1,25	140°	SOT -23 Surface Mount LED Lamp (3.0 mm x 1.3 mm)
KM-23HT	GaP	700	red transparent	0,5	1,25	140°	
KM-23HC	GaP	700	water clear	0,5	1,25	140°	
KM-23ID	GaAsP/GaP	625	red diffused	8	32	140°	
KM-23IT	GaAsP/GaP	625	red transparent	8	32	140°	
KM-23EC	GaAsP/GaP	625	water clear	8	32	140°	
KM-23SGD	GaP	565	green diffused	8	32	140°	
KM-23SGT	GaP	565	green transparent	8	32	140°	
KM-23SGC	GaP	565	water clear	8	32	140°	
KM-23YD	GaAsP/GaP	590	yellow diffused	5	12,5	140°	
KM-23YT	GaAsP/GaP	590	yellow transparent	5	12,5	140°	
KM-23YC	GaAsP/GaP	590	water clear	5	12,5	140°	
KM-23SRD	GaAlAs	660	red diffused	50	90	140°	
KM-23SRT	GaAlAs	660	red transparent	50	90	140°	
KM-23SRC	GaAlAs	660	water clear	50	90	140°	
KM-23SYD	InGaAlP	595	yellow diffused	40	100	140°	
KM-23SYT	InGaAlP	595	yellow transparent	40	100	140°	
KM-23SYC	InGaAlP	595	water clear	40	100	140°	
KM-23ESGW	GaAsP/GaP	625	white diffused	8	32	140°	
	GaP	565		8	32		
KM-23ESGC	GaAsP/GaP	625	water clear	8	32	140°	
	GaP	565		8	32		



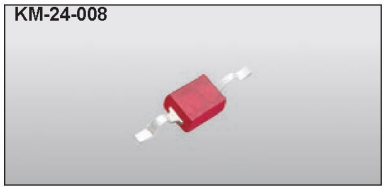
KM-24ID-003	GaAsP/GaP	625	red diffused	8	32	140°	Subminiature Soild State Lamps Gull Wing Lead
KM-24IT-003	GaAsP/GaP	625	red transparent	8	32	140°	
KM-24EC-003	GaAsP/GaP	625	water clear	8	32	140°	
KM-24SGD-003	GaP	565	green diffused	5	20	140°	
KM-24SGT-003	GaP	565	green transparent	5	20	140°	
KM-24SGC-003	GaP	565	water clear	5	20	140°	
KM-24YD-003	GaAsP/GaP	590	yellow diffused	3,2	8	140°	
KM-24YT-003	GaAsP/GaP	590	yellow transparent	3,2	8	140°	
KM-24YC-003	GaAsP/GaP	590	water clear	3,2	8	140°	
KM-24SRD-003	GaAlAs	660	red diffused	40	100	140°	
KM-24SRT-003	GaAlAs	660	red transparent	40	100	140°	
KM-24SRC-003	GaAlAs	660	water clear	40	100	140°	
KM-24SYD-003	InGaAlP	595	yellow diffused	40	80	140°	
KM-24SYT-003	InGaAlP	595	yellow transparent	40	80	140°	
KM-24SYC-003	InGaAlP	595	water clear	40	80	140°	



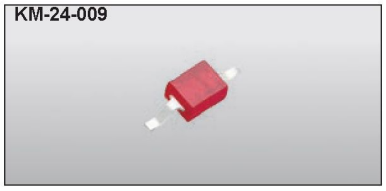
Caution! When operating both chips together, apply no more than 50% of the max. current to each chip. Refer to derating curve!

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

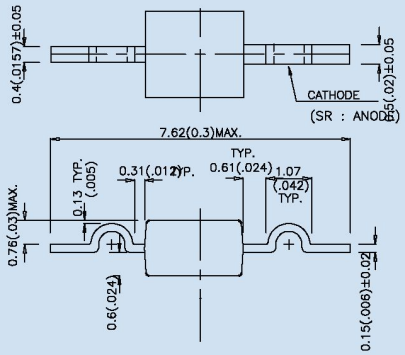
KM-24-008



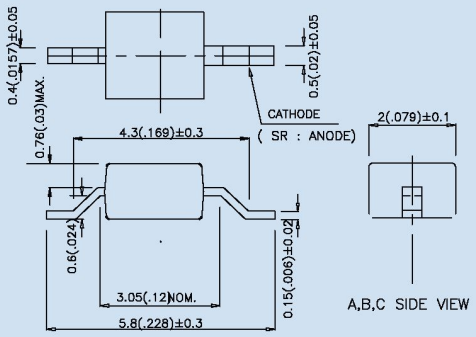
KM-24-009



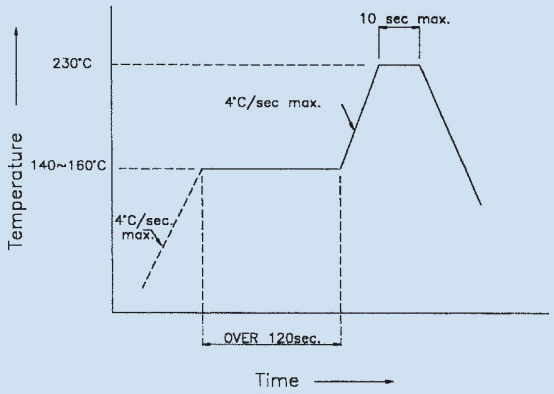
Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
KM-24ID-008	GaAsP/GaP	625	red diffused	8	32	140°	Subminiature Solid State Lamps (Yoke Lead)
KM-24IT-008	GaAsP/GaP	625	red transparent	8	32	140°	
KM-24EC-008	GaAsP/GaP	625	water clear	8	32	140°	
KM-24SGD-008	GaP	565	green diffused	5	20	140°	
KM-24SGT-008	GaP	565	green transparent	5	20	140°	
KM-24SGC-008	GaP	565	water clear	5	20	140°	
KM-24YD-008	GaAsP/GaP	590	yellow diffused	3,2	8	140°	
KM-24YT-008	GaAsP/GaP	590	yellow transparent	3,2	8	140°	
KM-24YC-008	GaAsP/GaP	590	water clear	3,2	8	140°	
KM-24SRD-008	GaAlAs	660	red diffused	40	100	140°	
KM-24SRT-008	GaAlAs	660	red transparent	40	100	140°	
KM-24SRC-008	GaAlAs	660	water clear	40	100	140°	
KM-24SYD-008	InGaAlP	595	yellow diffused	40	80	140°	
KM-24SYT-008	InGaAlP	595	yellow transparent	40	80	140°	
KM-24SYC-008	InGaAlP	595	water clear	40	80	140°	



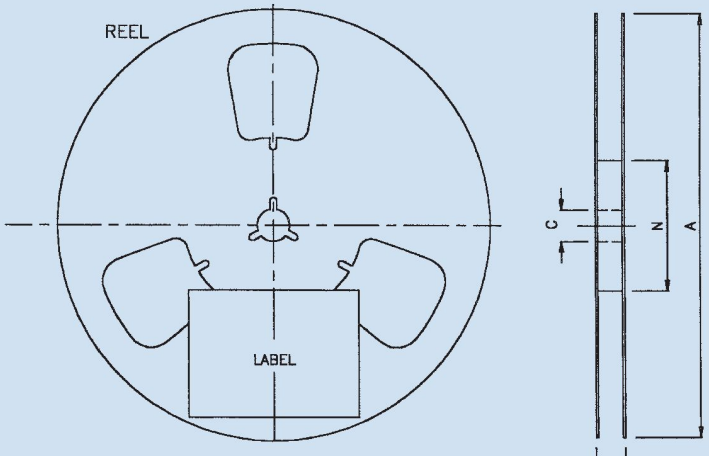
KM-24ID-009	GaAsP/GaP	625	red diffused	8	32	140°	Subminiature Solid State Lamps (Z-Bend Lead)
KM-24IT-009	GaAsP/GaP	625	red transparent	8	32	140°	
KM-24EC-009	GaAsP/GaP	625	water clear	8	32	140°	
KM-24SGD-009	GaP	565	green diffused	5	20	140°	
KM-24SGT-009	GaP	565	green transparent	5	20	140°	
KM-24SGC-009	GaP	565	water clear	5	20	140°	
KM-24YD-009	GaAsP/GaP	590	yellow diffused	3,2	8	140°	
KM-24YT-009	GaAsP/GaP	590	yellow transparent	3,2	8	140°	
KM-24YC-009	GaAsP/GaP	590	water clear	3,2	8	140°	
KM-24SRD-009	GaAlAs	660	red diffused	40	100	140°	
KM-24SRT-009	GaAlAs	660	red transparent	40	100	140°	
KM-24SRC-009	GaAlAs	660	water clear	40	100	140°	
KM-24SYD-009	InGaAlP	595	yellow diffused	40	80	140°	
KM-24SYT-009	InGaAlP	595	yellow transparent	40	80	140°	
KM-24SYC-009	InGaAlP	595	water clear	40	80	140°	



SMT REFLOW SOLDERING INSTRUCTIONS



REEL SPECIFICATIONS



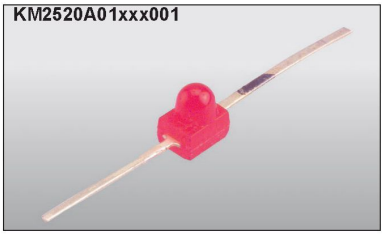
DIMENSIONS PER MILLIMETRES (INCHES)		
A	178.0±0.2(7.0±0.08)DIA.	
C	13.0(.512)DIA.TYP.	
N	73.0(2.874)MIN.	
T	14(.551)MAX.	18(.709)MAX.

Caution! When designing your product, please do not forget to refer to the derating curves!

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

SURFACE MOUNT LED LAMPS

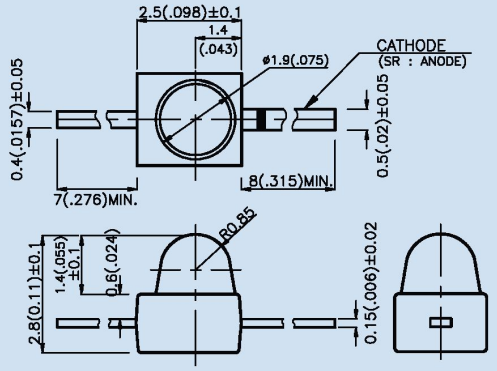
KM2520A01xxx001



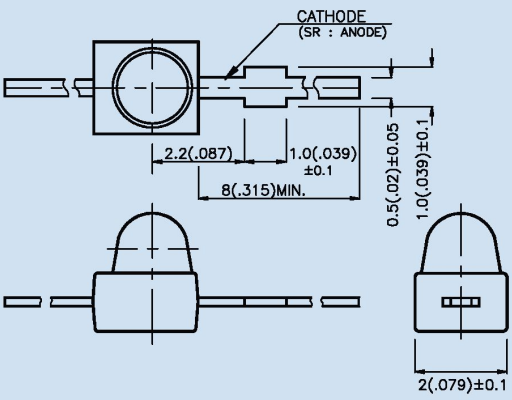
KM2520A01xxx002

KM2520A01xxx003

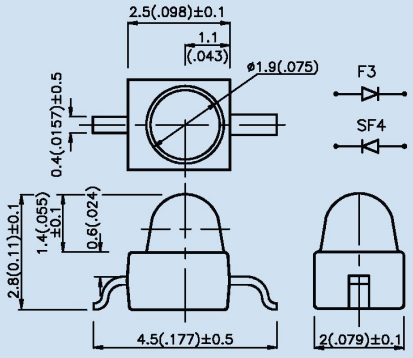
Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
KM2520A01ID001	GaAsP/GaP	625	red diffused	8	20	60°	Subminiature Solid State Lamps
KM2520A01IT001	GaAsP/GaP	625	red transparent	20	100	30°	
KM2520A01EC001	GaAsP/GaP	625	water clear	20	100	30°	
KM2520A01SGD001	GaP	565	green diffused	3,2	12,5	60°	
KM2520A01SGT001	GaP	565	green transparent	20	70	30°	
KM2520A01SGC001	GaP	565	water clear	50	150	30°	
KM2520A01YD001	GaAsP/GaP	590	yellow diffused	3,2	12,5	60°	
KM2520A01YT001	GaAsP/GaP	590	yellow transparent	20	70	30°	
KM2520A01YC001	GaAsP/GaP	590	water clear	20	70	30°	
KM2520A01SRD001	GaAlAs	660	red diffused	30	100	60°	
KM2520A01SRT001	GaAlAs	660	red transparent	200	1000	30°	
KM2520A01SRC001	GaAlAs	660	water clear	200	1000	30°	



KM2520A01ID002	GaAsP/GaP	625	red diffused	8	20	60°	Subminiature Solid State Lamps
KM2520A01IT002	GaAsP/GaP	625	red transparent	20	100	30°	
KM2520A01EC002	GaAsP/GaP	625	water clear	20	100	30°	
KM2520A01SGD002	GaP	565	green diffused	3,2	12,5	60°	
KM2520A01SGT002	GaP	565	green transparent	20	70	30°	
KM2520A01SGC002	GaP	565	water clear	50	150	30°	
KM2520A01YD002	GaAsP/GaP	590	yellow diffused	3,2	12,5	60°	
KM2520A01YT002	GaAsP/GaP	590	yellow transparent	20	70	30°	
KM2520A01YC002	GaAsP/GaP	590	water clear	20	70	30°	
KM2520A01SRD002	GaAlAs	660	red diffused	30	100	60°	
KM2520A01SRT002	GaAlAs	660	red transparent	200	1000	30°	
KM2520A01SRC002	GaAlAs	660	water clear	200	1000	30°	



KM2520A01ID003	GaAsP/GaP	625	red diffused	8	20	60°	Subminiature Solid State Lamps Gull Wing Lead
KM2520A01IT003	GaAsP/GaP	625	red transparent	20	100	30°	
KM2520A01EC003	GaAsP/GaP	625	water clear	20	100	30°	
KM2520A01SGD003	GaP	565	green diffused	3,2	12,5	60°	
KM2520A01SGT003	GaP	565	green transparent	20	70	30°	
KM2520A01SGC003	GaP	565	water clear	50	150	30°	
KM2520A01YD003	GaAsP/GaP	590	yellow diffused	3,2	12,5	60°	
KM2520A01YT003	GaAsP/GaP	590	yellow transparent	20	70	30°	
KM2520A01YC003	GaAsP/GaP	590	water clear	20	70	30°	
KM2520A01SRD003	GaAlAs	660	red diffused	30	100	60°	
KM2520A01SRT003	GaAlAs	660	red transparent	200	1000	30°	
KM2520A01SRC003	GaAlAs	660	water clear	200	1000	30°	



NOTES:
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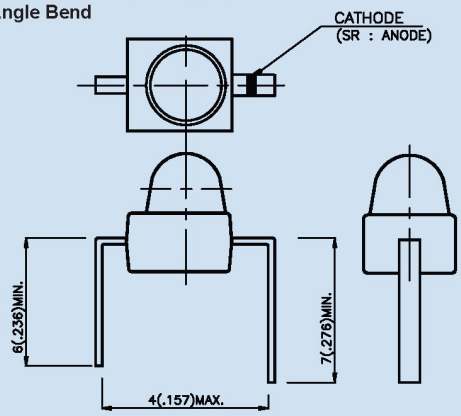
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

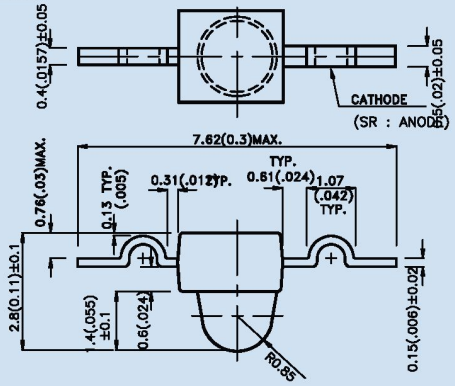
KM2520A01xxx004

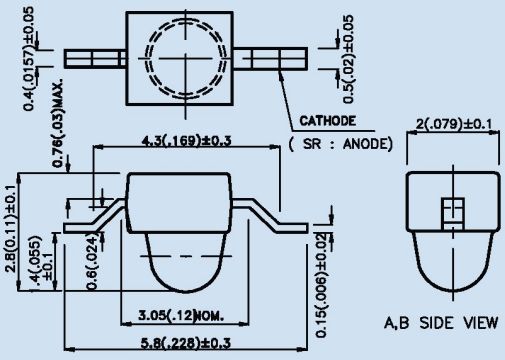
KM2520A01xxx008

KM2520A01xxx009

Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
KM2520A01ID004	GaAsP/GaP	625	red diffused	8	20	60°	Subminiature Solid State Lamps Rt. Angle Bend
KM2520A01IT004	GaAsP/GaP	625	red transparent	20	100	30°	
KM2520A01EC004	GaAsP/GaP	625	water clear	20	100	30°	
KM2520A01SGD004	GaP	565	green diffused	3,2	12,5	60°	
KM2520A01SGT004	GaP	565	green transparent	20	70	30°	
KM2520A01SGC004	GaP	565	water clear	50	150	30°	
KM2520A01YD004	GaAsP/GaP	590	yellow diffused	3,2	12,5	60°	
KM2520A01YT004	GaAsP/GaP	590	yellow transparent	20	70	30°	
KM2520A01YC004	GaAsP/GaP	590	water clear	20	70	30°	
KM2520A01SRD004	GaAlAs	660	red diffused	30	100	60°	
KM2520A01SRT004	GaAlAs	660	red transparent	200	1000	30°	
KM2520A01SRC004	GaAlAs	660	water clear	200	1000	30°	
KM2520A01ID008	GaAsP/GaP	625	red diffused	8	20	60°	Subminiature Solid State Lamps Yoke Lead
KM2520A01IT008	GaAsP/GaP	625	red transparent	20	100	30°	
KM2520A01EC008	GaAsP/GaP	625	water clear	20	100	30°	
KM2520A01SGD008	GaP	565	green diffused	3,2	12,5	60°	
KM2520A01SGT008	GaP	565	green transparent	20	70	30°	
KM2520A01SGC008	GaP	565	water clear	50	150	30°	
KM2520A01YD008	GaAsP/GaP	590	yellow diffused	3,2	12,5	60°	
KM2520A01YT008	GaAsP/GaP	590	yellow transparent	20	70	30°	
KM2520A01YC008	GaAsP/GaP	590	water clear	20	70	30°	
KM2520A01SRD008	GaAlAs	660	red diffused	30	100	60°	
KM2520A01SRT008	GaAlAs	660	red transparent	200	1000	30°	
KM2520A01SRC008	GaAlAs	660	water clear	200	1000	30°	
KM2520A01ID009	GaAsP/GaP	625	red diffused	8	20	60°	Subminiature Solid State Lamps Z-Bend Lead
KM2520A01IT009	GaAsP/GaP	625	red transparent	20	100	30°	
KM2520A01EC009	GaAsP/GaP	625	water clear	20	100	30°	
KM2520A01SGD009	GaP	565	green diffused	3,2	12,5	60°	
KM2520A01SGT009	GaP	565	green transparent	20	70	30°	
KM2520A01SGC009	GaP	565	water clear	50	150	30°	
KM2520A01YD009	GaAsP/GaP	590	yellow diffused	3,2	12,5	60°	
KM2520A01YT009	GaAsP/GaP	590	yellow transparent	20	70	30°	
KM2520A01YC009	GaAsP/GaP	590	water clear	20	70	30°	
KM2520A01SRD009	GaAlAs	660	red diffused	30	100	60°	
KM2520A01SRT009	GaAlAs	660	red transparent	200	1000	30°	
KM2520A01SRC009	GaAlAs	660	water clear	200	1000	30°	



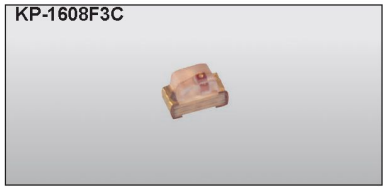




NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

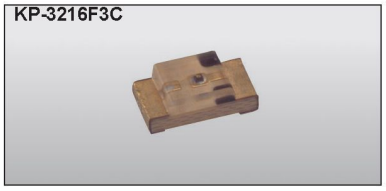
Kingbright® INFRARED EMITTING SURFACE MOUNT DIODES

KP-1608F3C

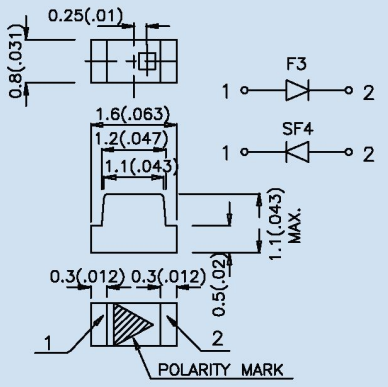


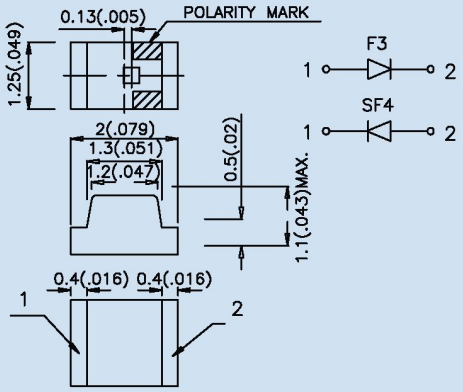
KP-2012F3C

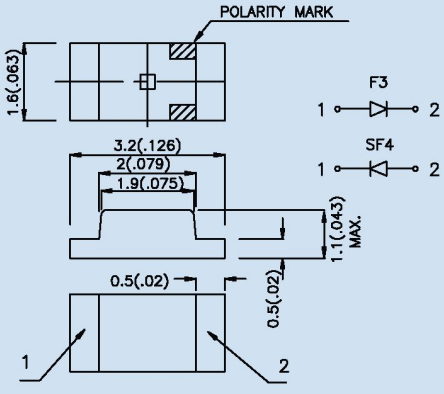
KP-3216F3C



Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Ie (mW/sr) @20mA *50mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
KP-1608F3C	GaAs	940	water clear	0,8	1,25	120°	1.6 mm x 0.8 mm (0603)
KP-1608F3BT	GaAs	940	blue transparent	0,8	1,25	120°	
KP-1608SF4C	GaAlAs	880	water clear	0,8	1,25	120°	
KP-1608SF4BT	GaAlAs	880	blue transparent	0,8	1,25	120°	
KP-2012F3C	GaAs	940	water clear	0,8	1,25	120°	2.0 mm x 1.2 mm (0805)
KP-2012F3BT	GaAs	940	blue transparent	0,8	1,25	120°	
KP-2012SF4C	GaAlAs	880	water clear	0,8	1,25	120°	
KP-2012SF4BT	GaAlAs	880	blue transparent	0,8	1,25	120°	
KP-3216F3C	GaAs	940	water clear	0,8	1,25	120°	3.2 mm x 1.6 mm (1206)
KP-3216F3BT	GaAs	940	blue transparent	0,8	1,25	120°	
KP-3216SF4C	GaAlAs	880	water clear	0,8	1,25	120°	
KP-3216SF4BT	GaAlAs	880	blue transparent	0,8	1,25	120°	





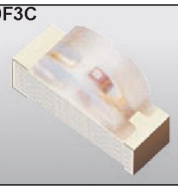


NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

INFRARED EMITTING SURFACE MOUNT DIODES Kingbright®

KP-3015F3C

KPA-3010F3C



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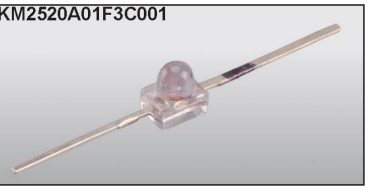
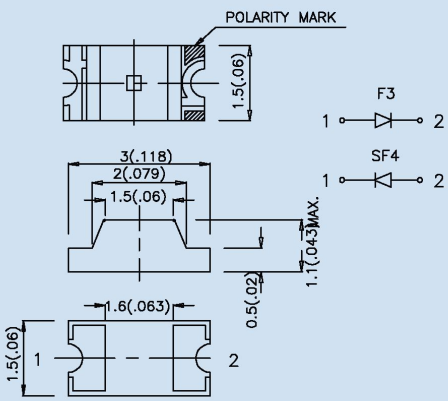
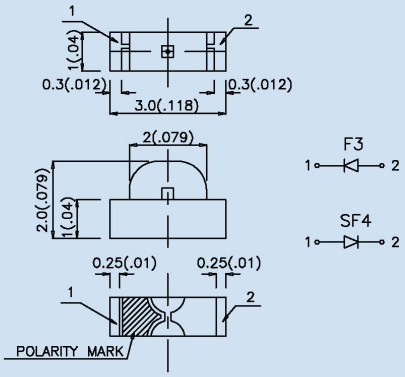
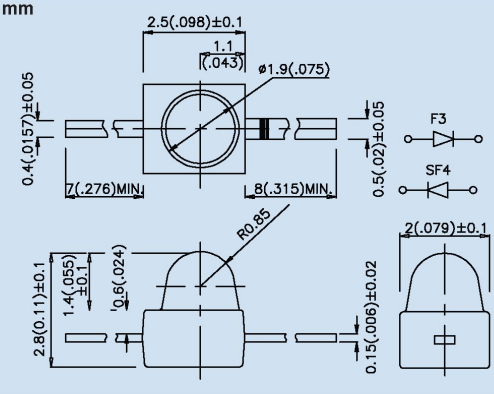


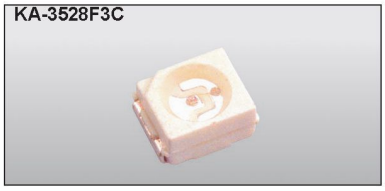
Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Ie (mW/sr) @20mA *50mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
KP-3015F3C	GaAs	940	water clear	0,8	1,25	120°	3.0 mm x 1.5 mm (1106) 
KP-3015SF4C	GaAlAs	880	water clear	0,8	1,25	120°	
KPA-3010F3C	GaAs	940	water clear	0,8	1,25	120°	3.0 mm x 1.0 mm (1104) 
KPA-3010SF4C	GaAlAs	880	water clear	0,8	1,25	120°	
KM2520A01 F3C001	GaAs	940	water clear	2 *3,2	8 *20	30° 30°	2 mm 
KM2520A01 SF4C001	GaAlAs	880	water clear	2 *3,2	8 *20	30° 30°	

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

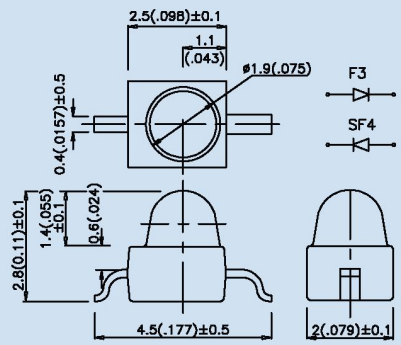
Kingbright® INFRARED EMITTING SURFACE MOUNT DIODES

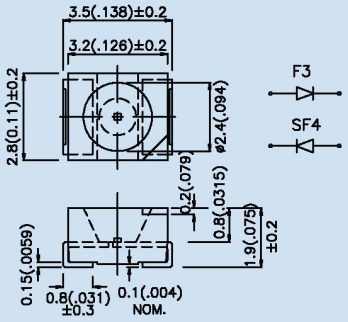
KM2520A01F3C003

KA-3528F3C

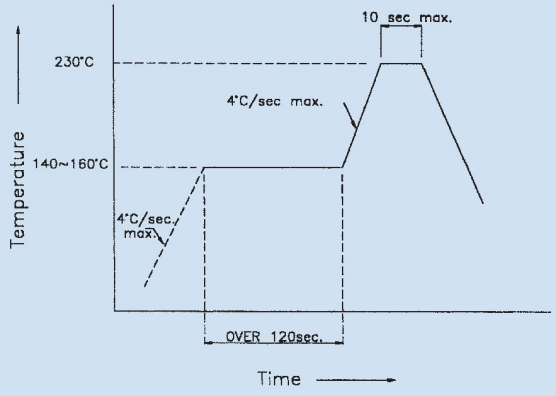


Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Ie (mW/sr) @20mA *50mA		Viewing Angle	Dimension
				Min.	Max.	2θ1/2	
KM2520A01 F3C003	GaAs	940	water clear	2 *3,2	8 *20	30° 30°	2 mm
KM2520A01 SF4C003	GaAlAs	880	water clear	2 *3,2	8 *20	30° 30°	
KA-3528F3C	GaAs	940	water clear	1 *3	5 *12,5	120° 120°	3.5 mm x 2.8 mm
KA-3528SF4C	GaAlAs	880	water clear	1 *3	5 *12,5	120° 120°	

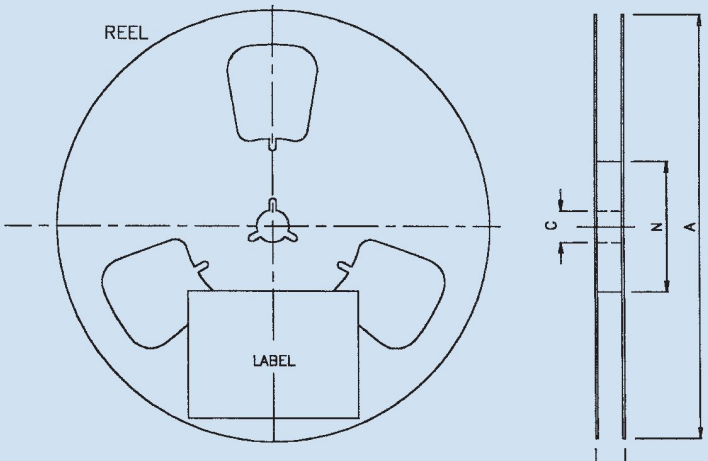




SMT REFLOW SOLDERING INSTRUCTIONS



REEL SPECIFICATIONS



DIMENSIONS PER MILLIMETRES (INCHES)		
A	178.0±0.2(7.0±0.08)DIA.	
C	13.0(.512)DIA.TYP.	
N	73.0(2.874)MIN.	
T	14(.551)MAX.	18(.709)MAX.

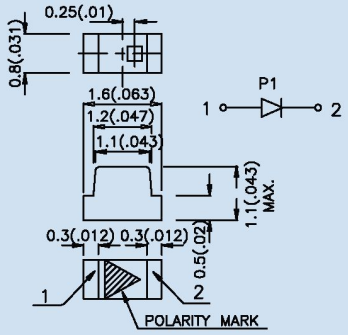
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

KP-1608P1C

KP-2012P3C

1.6mm x 0.8mm (0603) PHOTOTRANSISTOR

KP-1608P1C WATER CLEAR LENS
KP-1608P1BT BLUE TRANSPARENT LENS



ELECTRICAL AND RADIANT CHARACTERISTICS T_A=25°C

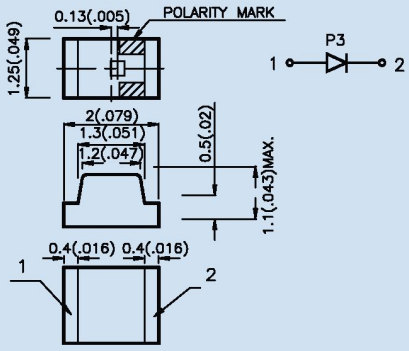
Symbol	Parameter	Min.	Typ.	Max	Unit	Test Condition
$V_{BR\ CEO}$	Collector-to-Emitter Breakdown Voltage	30	-	-	V	I_C=100uA, I_B=0
$V_{BR\ ECO}$	Emitter-to-Collector Breakdown Voltage	5	-	-	V	I_E=100uA, I_B=0
$V_{CE\ (SAT)}$	Collector-to-Emitter Saturation Voltage	-	-	0,8	V	I_C=0.1mA, H=2.5mW/cm^2
I_{CEO}	Collector Dark Current	-	-	100	nA	V_{CE}=10V, H=0mW/cm^2
T_R	Rise Time (10% to 90%)	-	3	-	us	V_{CE}=5V, I_C=1mA, R_L=100Ω
T_F	Fall Time (90% to 10%)	-	3	-	us	
$I_{(ON)}$	On State Collector Current	8	-	12,5	uA	V_{CE}=5V, E_e=1mW/cm^2 λ=940nm
		12,5	-	20	uA	

ABSOLUTE MAXIMUM RATING T_A=25°C

Parameter	Max. Ratings
Collector-to-Emitter breakdown voltage	30V
Emitter-to-Collector breakdown voltage	5V
Power dissipation at (or below) free air temperature	100mW
Operating temperature range	-40°C~ +85°C
Storage temperature range	-40°C~ +85°C
Lead soldering temperature (4mm for 5sec)	260°C

2.0mm x 1.2mm (0805) PHOTOTRANSISTOR

KP-2012P3C WATER CLEAR LENS
KP-2012P3BT BLUE TRANSPARENT LENS



ELECTRICAL AND RADIANT CHARACTERISTICS T_A=25°C

Symbol	Parameter	Min.	Typ.	Max	Unit	Test Condition
$V_{BR\ CEO}$	Collector-to-Emitter Breakdown Voltage	30	-	-	V	I_C=100uA, I_B=0
$V_{BR\ ECO}$	Emitter-to-Collector Breakdown Voltage	5	-	-	V	I_E=100uA, I_B=0
$V_{CE\ (SAT)}$	Collector-to-Emitter Saturation Voltage	-	-	0,8	V	I_C=0.1mA, H=2.5mW/cm^2
I_{CEO}	Collector Dark Current	-	-	100	nA	V_{CE}=10V, H=0mW/cm^2
T_R	Rise Time (10% to 90%)	-	3	-	us	V_{CE}=5V, I_C=1mA, R_L=100Ω
T_F	Fall Time (90% to 10%)	-	3	-	us	
$I_{(ON)}$	On State Collector Current	0,1	-	0,3	uA	V_{CE}=5V, E_e=1mW/cm^2 λ=940nm

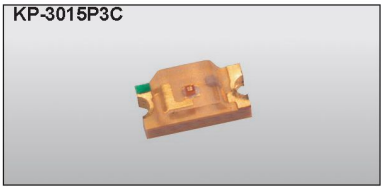
ABSOLUTE MAXIMUM RATING T_A=25°C

Parameter	Max. Ratings
Collector-to-Emitter breakdown voltage	30V
Emitter-to-Collector breakdown voltage	5V
Power dissipation at (or below) free air temperature	100mW
Operating temperature range	-40°C~ +85°C
Storage temperature range	-40°C~ +85°C
Lead soldering temperature (4mm for 5sec)	260°C

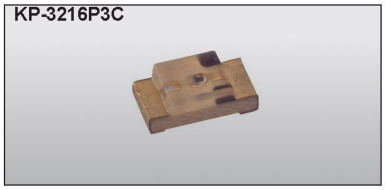
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

SURFACE MOUNT PHOTOTRANSISTORS

KP-3015P3C

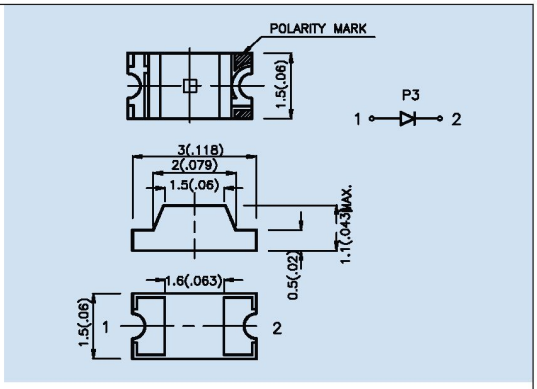


KP-3216P3C



3.0mm x 1.5mm (1106) PHOTOTRANSISTOR

KP-3015P3C WATER CLEAR LENS
KP-3015P3BT BLUE TRANSPARENT LENS



ELECTRICAL AND RADIANT CHARACTERISTICS T_A=25°C

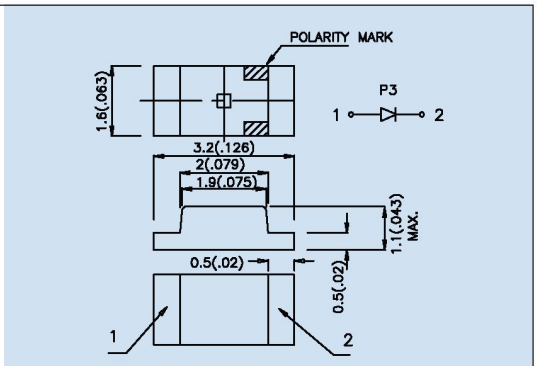
Symbol	Parameter	Min.	Typ.	Max	Unit	Test Condition
$V_{BR\ CEO}$	Collector-to-Emitter Breakdown Voltage	30	-	-	V	I_C=100uA, I_B=0
$V_{BR\ ECO}$	Emitter-to-Collector Breakdown Voltage	5	-	-	V	I_E=100uA, I_B=0
$V_{CE\ (SAT)}$	Collector-to-Emitter Saturation Voltage	-	-	0,8	V	I_C=0.1mA, H=2.5mW/cm^2
I_{CEO}	Collector Dark Current	-	-	100	nA	V_{CE}=10V, H=0mW/cm^2
T_R	Rise Time (10% to 90%)	-	3	-	us	V_{CE}=5V, I_C=1mA, R_L=100Ω
T_F	Fall Time (90% to 10%)	-	3	-	us	
$I_{(ON)}$	On State Collector Current	0,1	-	0,3	uA	V_{CE}=5V, E_e=1mW/cm^2 λ=940nm

ABSOLUTE MAXIMUM RATING T_A=25°C

Parameter	Max. Ratings
Collector-to-Emitter breakdown voltage	30V
Emitter-to-Collector breakdown voltage	5V
Power dissipation at (or below) free air temperature	100mW
Operating temperature range	-40°C~ +85°C
Storage temperature range	-40°C~ +85°C
Lead soldering temperature (4mm for 5sec)	260°C

3.2mm x 1.6mm (1206) PHOTOTRANSISTOR

KP-3216P3C WATER CLEAR LENS
KP-3216P3BT BLUE TRANSPARENT LENS



ELECTRICAL AND RADIANT CHARACTERISTICS T_A=25°C

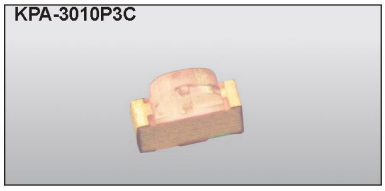
Symbol	Parameter	Min.	Typ.	Max	Unit	Test Condition
$V_{BR\ CEO}$	Collector-to-Emitter Breakdown Voltage	30	-	-	V	I_C=100uA, I_B=0
$V_{BR\ ECO}$	Emitter-to-Collector Breakdown Voltage	5	-	-	V	I_E=100uA, I_B=0
$V_{CE\ (SAT)}$	Collector-to-Emitter Saturation Voltage	-	-	0,8	V	I_C=0.1mA, H=2.5mW/cm^2
I_{CEO}	Collector Dark Current	-	-	100	nA	V_{CE}=10V, H=0mW/cm^2
T_R	Rise Time (10% to 90%)	-	3	-	us	V_{CE}=5V, I_C=1mA, R_L=100Ω
T_F	Fall Time (90% to 10%)	-	3	-	us	
$I_{(ON)}$	On State Collector Current	0,1	-	0,3	uA	V_{CE}=5V, E_e=1mW/cm^2 λ=940nm

ABSOLUTE MAXIMUM RATING T_A=25°C

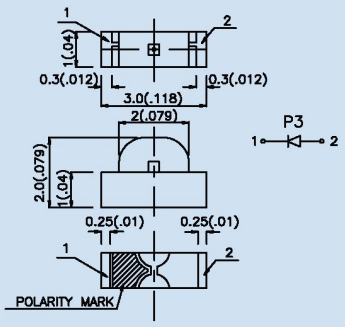
Parameter	Max. Ratings
Collector-to-Emitter breakdown voltage	30V
Emitter-to-Collector breakdown voltage	5V
Power dissipation at (or below) free air temperature	100mW
Operating temperature range	-40°C~ +85°C
Storage temperature range	-40°C~ +85°C
Lead soldering temperature (4mm for 5sec)	260°C

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

KPA-3010P3C



3.0mm x 1.0mm (1104) PHOTOTRANSISTOR
KPA-3010P3C WATER CLEAR LENS
KPA-3010P3BT BLUE TRANSPARENT LENS



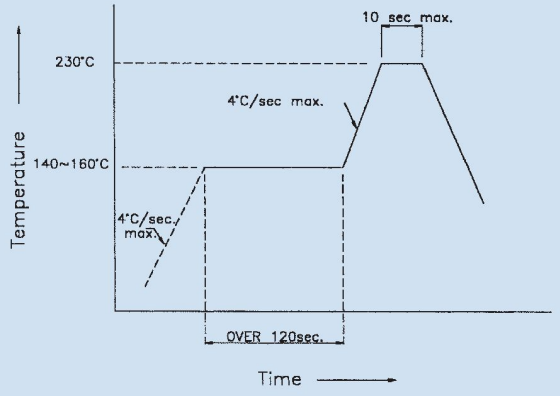
ELECTRICAL AND RADIANT CHARACTERISTICS T_A=25°C

Symbol	Parameter	Min.	Typ.	Max	Unit	Test Condition
$V_{BR\ CEO}$	Collector-to-Emitter Breakdown Voltage	30	-	-	V	I_C=100uA, I_B=0
$V_{BR\ ECO}$	Emitter-to-Collector Breakdown Voltage	5	-	-	V	I_E=100uA, I_B=0
$V_{CE\ (SAT)}$	Collector-to-Emitter Saturation Voltage	-	-	0,8	V	I_C=0.1mA, H=2.5mW/cm^2
I_{CEO}	Collector Dark Current	-	-	100	nA	V_{CE}=10V, H=0mW/cm^2
T_R	Rise Time (10% to 90%)	-	3	-	us	V_{CE}=5V, I_C=1mA,
T_F	Fall Time (90% to 10%)	-	3	-	us	R_L=100Ω
$I_{(ON)}$	On State Collector Current	0,1	-	0,3	uA	V_{CE}=5V, E_e=1mW/cm^2 λ=940nm

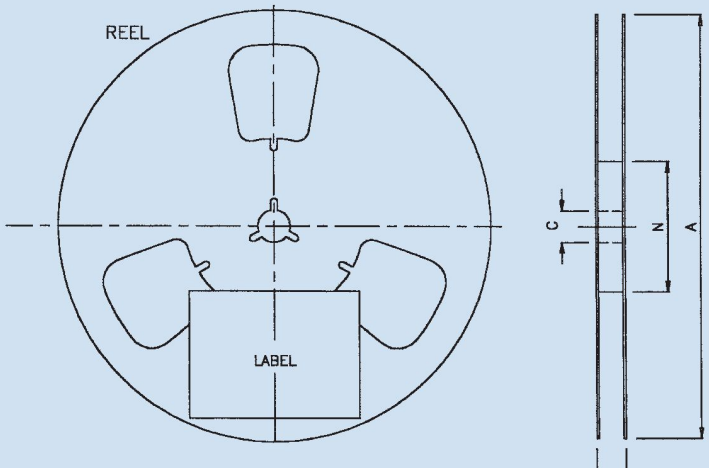
ABSOLUTE MAXIMUM RATING T_A=25°C

Parameter	Max. Ratings
Collector-to-Emitter breakdown voltage	30V
Emitter-to-Collector breakdown voltage	5V
Power dissipation at (or below) free air temperature	100mW
Operating temperature range	-40°C~ +85°C
Storage temperature range	-40°C~ +85°C
Lead soldering temperature (4mm for 5sec)	260°C

SMT REFLOW SOLDERING INSTRUCTIONS



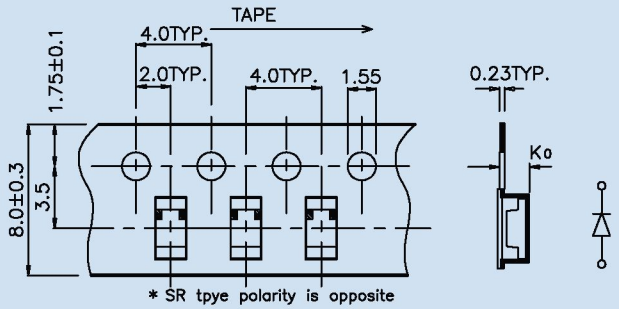
REEL SPECIFICATIONS



DIMENSIONS PER MILLIMETRES (INCHES)		
A	178.0±0.2(7.0±0.08)DIA.	
C	13.0(.512)DIA.TYP.	
N	73.0(2.874)MIN.	
T	14(.551)MAX.	18(.709)MAX.

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

SMD TAPE SPECIFICATION

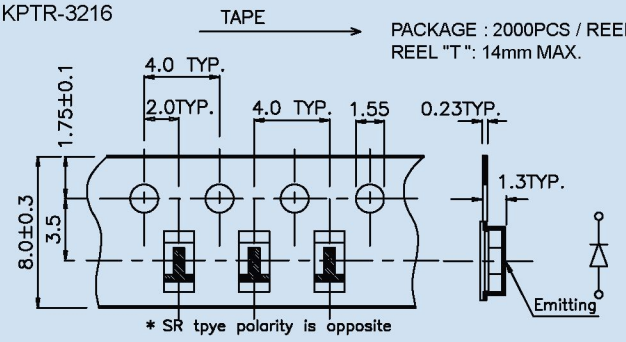


PACKAGE : 2000PCS / REEL
REEL "T ": 14mm MAX.

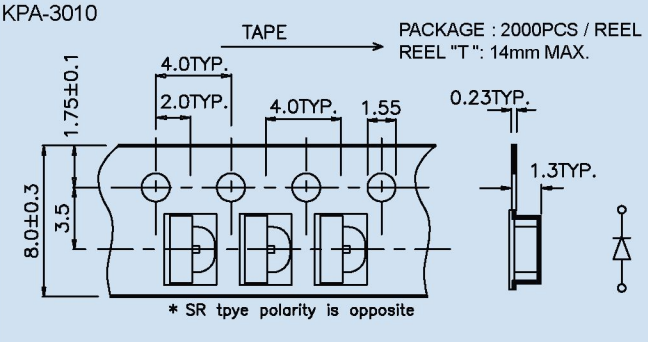
PART NO.	Ko
KP-3216	1.3 TYP.
KP-2012	1.32 TYP.
KP-1608	1.25 TYP,
KP-3015	1.2 TYP.

PART NO.	Ko
KPT-3216	0.83 TYP.
KPT-2012	0.84 TYP.
KPT-1608	0.9 TYP.
KPL-3015	1.75 TYP.

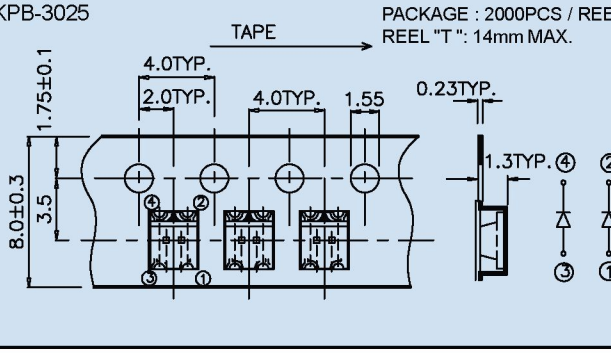
KPTR-3216



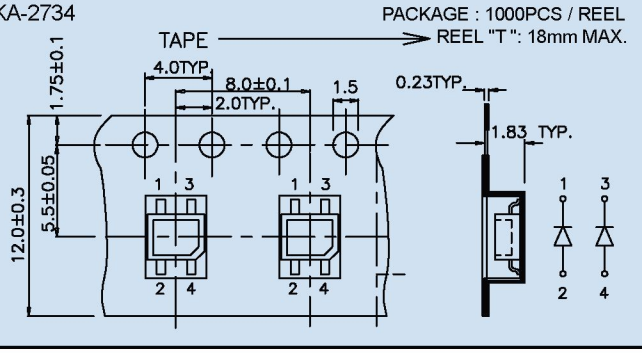
KPA-3010



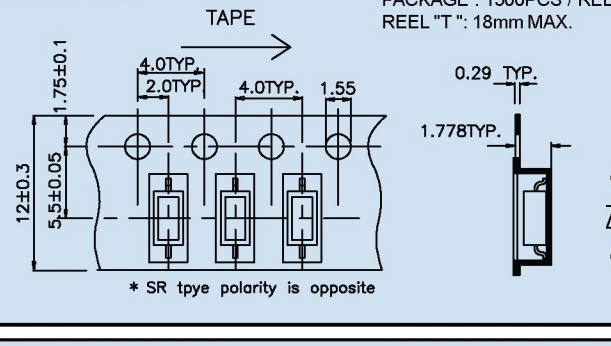
KPB-3025



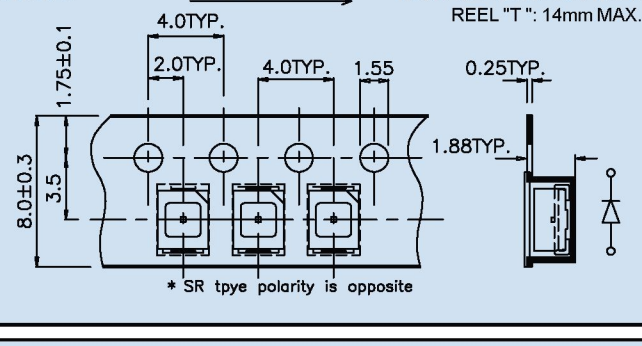
KA-2734



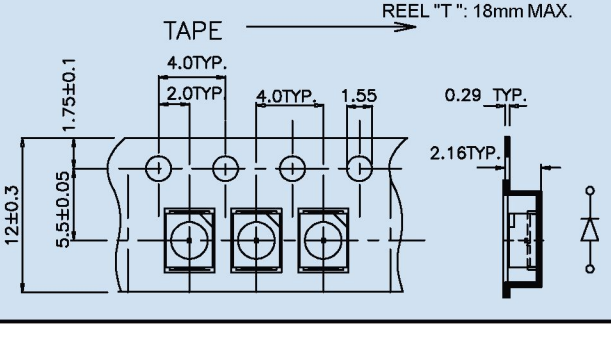
KA-3022-4.5SF



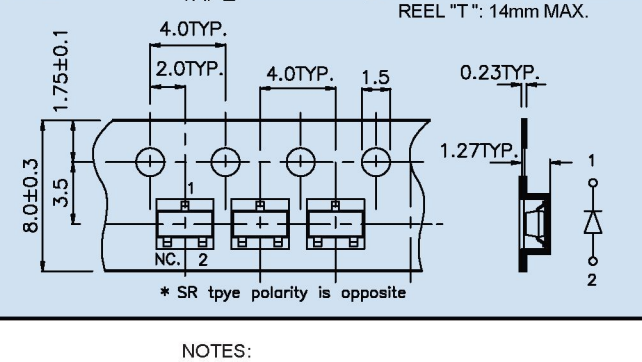
KA-3020



KA-3528



KM-23



NOTES:
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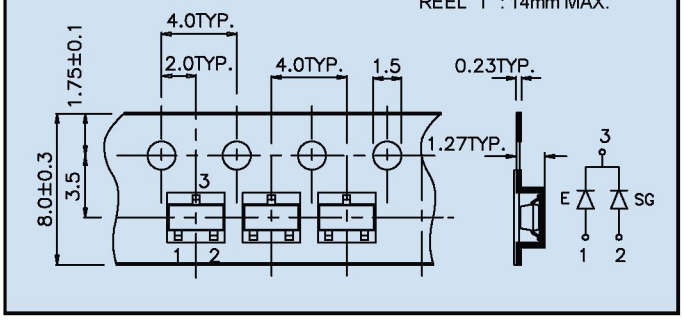
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

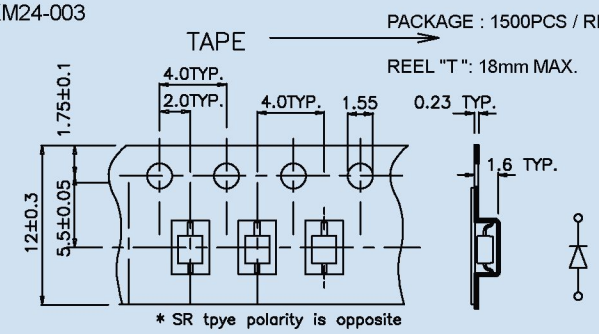
SMD TAPE SPECIFICATION

Kingbright®

KM-23ESG TAPE → PACKAGE : 2000PCS / REEL
REEL "T ": 14mm MAX.



KM24-003
TAPE → PACKAGE : 1500PCS / REEL
REEL "T ": 18mm MAX.



KM2520A01xxx003
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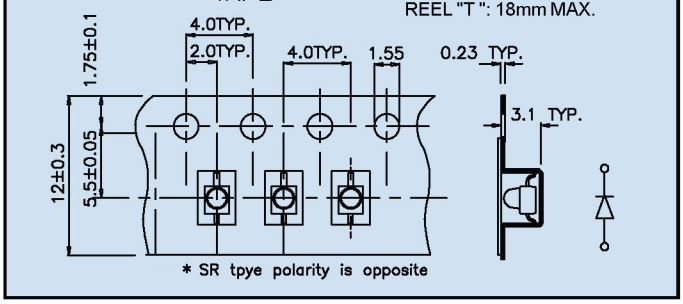
REEL "T ": 18mm MAX.



KM24-008
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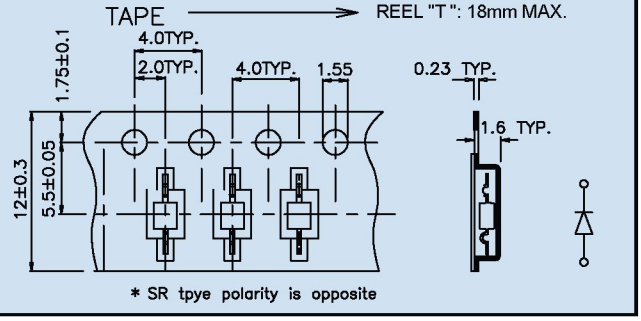

KM2520A01xxx008
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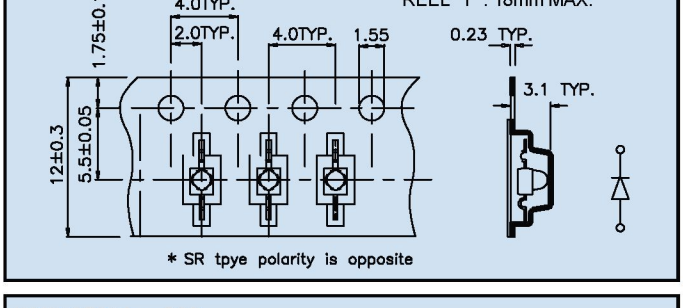
REEL "T ": 18mm MAX.



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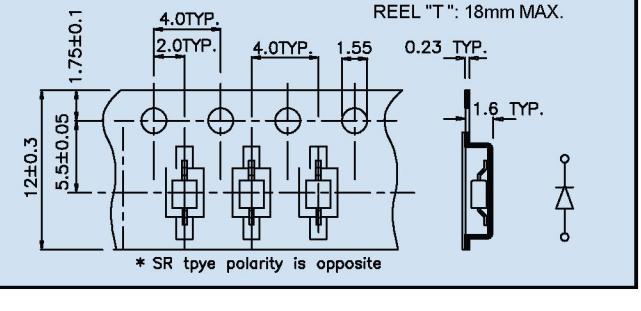

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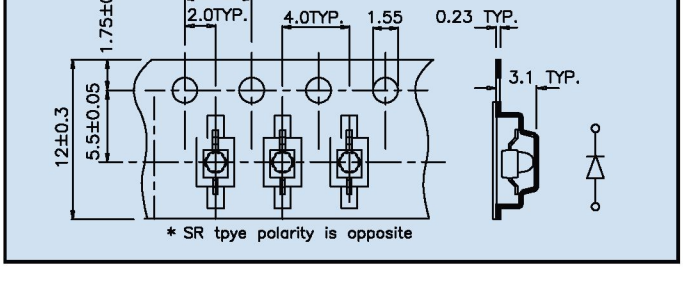
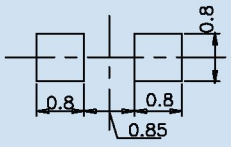
REEL "T ": 18mm MAX.



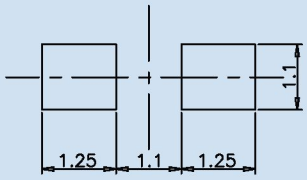
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

RECOMMENDED SOLDERING PATTERN

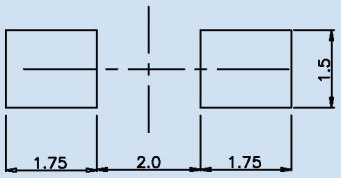
KP-1608 / KPT-1608



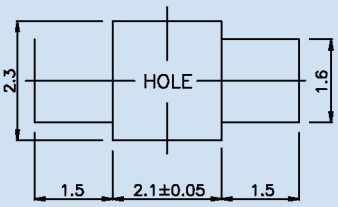
KP-2012 / KPT-2012



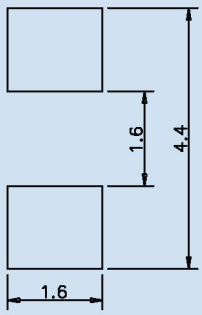
KP-3216 / KPT-3216



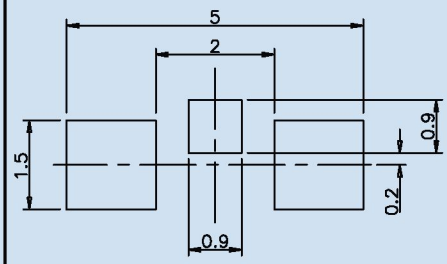
KPTR-3216



KP-3015
KPL-3015



KPA-3010



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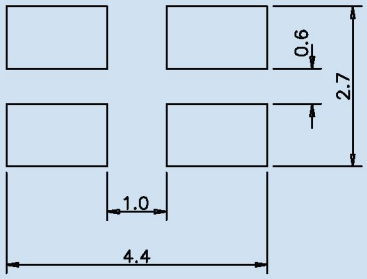
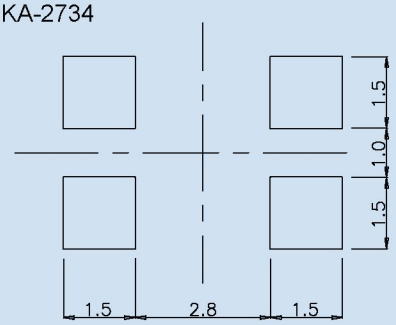
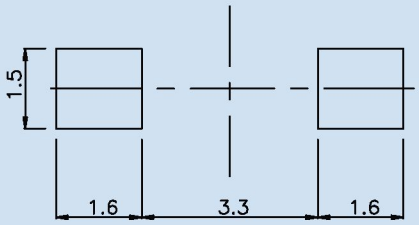


KA-2734



KA-3022-4.5SF



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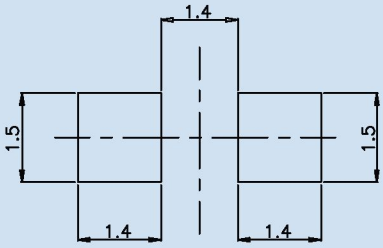
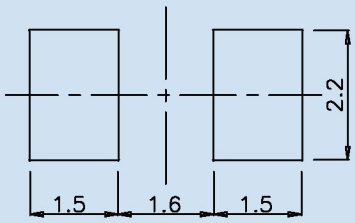
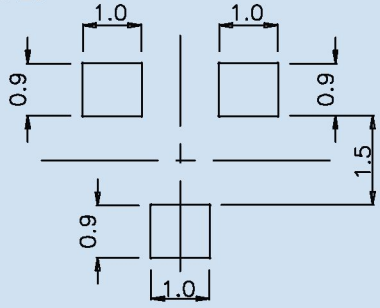


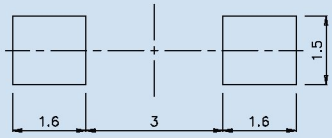
KA-3528



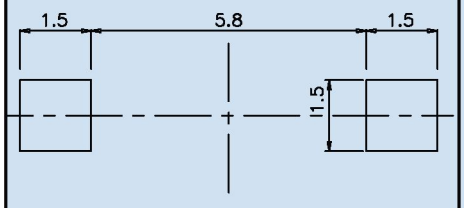
KM-23



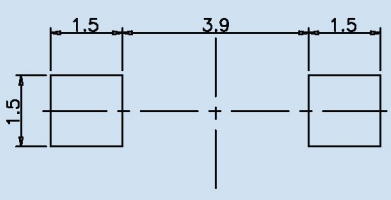
KM2520A01-003 / KM-24-003



KM2520A01-008 / KM-24-008

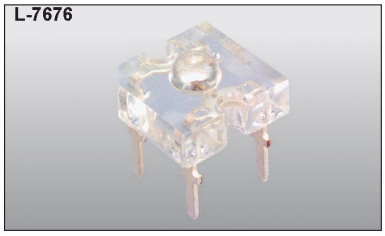


KM2520A01-009 / KM-24-009

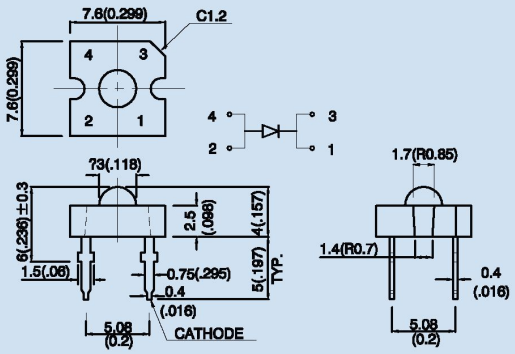


NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

SUPER FLUX LED LAMPS



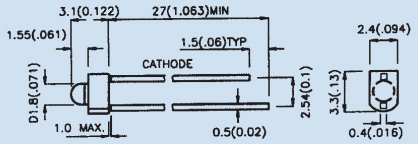
Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA *70mA		Viewing Angle	Dimension
				Min.	Max.	2θ1/2	
L-7676CSEC	InGaAlP	620	water clear	200 *1300	700 *2500	70° 70°	
L-7676CSEC-E	InGaAlP	630	water clear	400 *1300	1000 *2500	70° 70°	
L-7676CSYC	InGaAlP	595	water clear	200 *300	600 *1000	70° 70°	
L-7676CSURC	InGaAlP	640	water clear	300 *700	700 *1600	70° 70°	
L-7676CSURC-E	InGaAlP	640	water clear	300 *700	800 *1600	70° 70°	

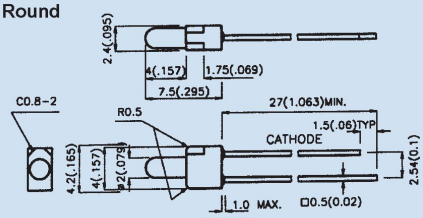


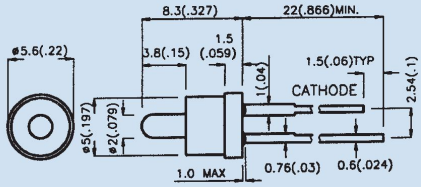
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

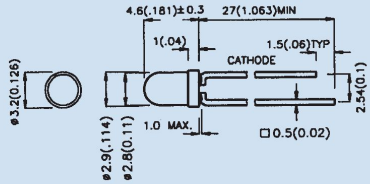
Kingbright® ROUND LED LAMPS

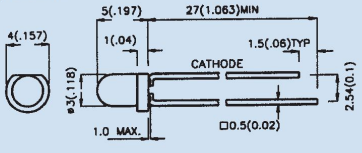
Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-2060HD	GaP	700	red diffused	0,5	3,2	70°	1.8 mm Round
L-2060GD	GaP	565	green diffused	5	20	70°	
L-2060YD	GaAsP/GaP	590	yellow diffused	3,2	520	70°	
L-2060ED	GaAsP/GaP	625	orange diffused	8	32	70°	
L-2060ID	GaAsP/GaP	625	red diffused	8	32	70°	
L-2060SRD	GaAlAs	660	red diffused	*70	*300	70°	
L-2060SRC	GaAlAs	660	water clear	*100	*500	30°	
L-1464HD	GaP	700	red diffused	0,5	1,25	60°	2 mm Round
L-1464ID	GaAsP/GaP	625	red diffused	5	20	60°	
L-1464ED	GaAsP/GaP	625	orange diffused	5	20	60°	
L-1464GD	GaP	565	green diffused	3,2	12,5	60°	
L-1464YD	GaAsP/GaP	590	yellow diffused	3,2	8	60°	
L-21HD	GaP	700	red diffused	0,5	0,8	60°	2 mm Round
L-21ID	GaAsP/GaP	625	red diffused	3,2	8	60°	
L-21ED	GaAsP/GaP	625	orange diffused	3,2	8	60°	
L-21GD	GaP	565	green diffused	1,25	5	60°	
L-21YD	GaAsP/GaP	590	yellow diffused	1,25	5	60°	
L-21SGD	GaP	565	green diffused	*5	*8	60°	
L-934HD	GaP	700	red diffused	1,3	5	60°	T-1 (3 mm) Round
L-934ID	GaAsP/GaP	625	red diffused	8	50	60°	
L-934IT	GaAsP/GaP	625	red transparent	20	125	50°	
L-934EC	GaAsP/GaP	625	water clear	20	125	50°	
L-934ED	GaAsP/GaP	625	orange diffused	8	50	60°	
L-934GD	GaP	565	green diffused	8	32	60°	
L-934GT	GaP	565	green transparent	20	80	50°	
L-934GC	GaP	565	water clear	20	80	50°	
L-934YD	GaAsP/GaP	590	yellow diffused	8	32	60°	
L-934YT	GaAsP/GaP	590	yellow transparent	10	50	50°	
L-934YC	GaAsP/GaP	590	water clear	10	50	50°	
L-934ND	GaAsP/GaP	610	orange diffused	8	50	60°	
L-934NT	GaAsP/GaP	610	orange transparent	20	125	50°	
L-934NC	GaAsP/GaP	610	water clear	20	125	50°	
L-934PGD	GaP	555	green diffused	2	8	60°	
L-934PGT	GaP	555	green transparent	3,2	20	50°	
L-934PGC	GaP	555	water clear	3,2	20	50°	
L-34HD	GaP	700	red diffused	1,3	3,2	60°	T-1 (3 mm) Round
L-34ID	GaAsP/GaP	625	red diffused	8	50	60°	
L-34GD	GaP	565	green diffused	5	32	60°	
L-34YD	GaAsP/GaP	590	yellow diffused	5	20	60°	
L-34AD	GaAsP/GaP	590	amber diffused	5	20	60°	











NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

ROUND LED LAMPS

Kingbright®

Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-34HDSL	GaP	700	red diffused	1,3	3,2	60°	T-1 (3 mm) Round
L-34IDSL	GaAsP/GaP	625	red diffused	8	50	60°	
L-34GDSL	GaP	565	green diffused	5	32	60°	
L-34YDSL	GaAsP/GaP	590	yellow diffused	5	20	60°	
L-1344HD	GaP	700	red diffused	1,3	5	60°	T-1 (3 mm) Round
L-1344ID	GaAsP/GaP	625	red diffused	8	50	60°	
L-1344IT	GaAsP/GaP	625	red transparent	20	125	50°	
L-1344GD	GaP	565	green diffused	8	32	60°	
L-1344GT	GaP	565	green transparent	20	80	50°	
L-1344YD	GaAsP/GaP	590	yellow diffused	8	32	60°	
L-1344YT	GaAsP/GaP	590	yellow transparent	10	50	50°	
L-1154HD	GaP	700	red diffused	1,3	5	60°	T-1 (3 mm) Round
L-1154HT	GaP	700	red transparent	2	8	50°	
L-1154ID	GaAsP/GaP	625	red diffused	8	50	60°	
L-1154IT	GaAsP/GaP	625	red transparent	20	125	50°	
L-1154GD	GaP	565	green diffused	8	32	60°	
L-1154GT	GaP	565	green transparent	20	80	50°	
L-1154YD	GaAsP/GaP	590	yellow diffused	8	32	60°	
L-1154YT	GaAsP/GaP	590	yellow transparent	10	50	50°	
L-1154ND	GaAsP/GaP	610	orange diffused	8	50	60°	
L-1154NT	GaAsP/GaP	610	orange transparent	20	125	50°	
L-1154PGD	GaP	555	green diffused	2	8	60°	
L-1154PGT	GaP	555	green transparent	3,2	20	50°	
L-132XHD	GaP	700	red diffused	1,3	5	60°	T-1 (3 mm) Round
L-132XHT	GaP	700	red transparent	2	8	50°	
L-132XID	GaAsP/GaP	625	red diffused	8	50	60°	
L-132XIT	GaAsP/GaP	625	red transparent	20	125	50°	
L-132XGD	GaP	565	green diffused	8	32	60°	
L-132XGT	GaP	565	green transparent	20	80	50°	
L-132XGC	GaP	565	water clear	20	80	50°	
L-132XYD	GaAsP/GaP	590	yellow diffused	8	32	60°	
L-132XYT	GaAsP/GaP	590	yellow transparent	10	50	50°	
L-132XYC	GaAsP/GaP	590	water clear	10	50	50°	
L-132XND	GaAsP/GaP	610	orange diffused	8	50	60°	
L-132XNT	GaAsP/GaP	610	orange transparent	20	125	50°	
L-132XNC	GaAsP/GaP	610	water clear	20	125	50°	
L-132XPGD	GaP	555	green diffused	2	8	60°	
L-132XPGT	GaP	555	green transparent	3,2	20	50°	
L-132XPGC	GaP	555	water clear	3,2	20	50°	
L-174XHT	GaP	700	red transparent	2	8	100°	T-1 (3 mm) Round
L-174XIT	GaAsP/GaP	625	red transparent	8	32	100°	
L-174XGT	GaP	565	green transparent	8	32	100°	
L-174XYT	GaAsP/GaP	590	yellow transparent	8	32	100°	
L-174XSRT	GaAlAs	660	red transparent	*100	*500	100°	

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

ROUND LED LAMPS

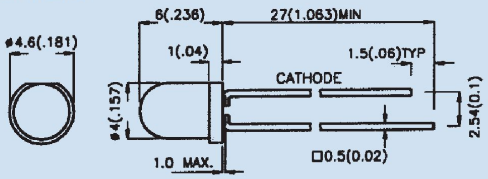
L-44

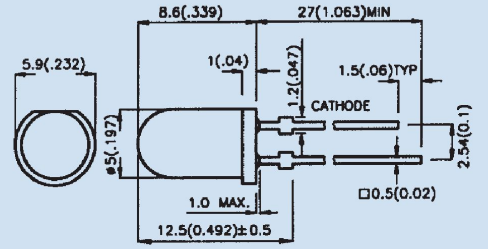
L-53

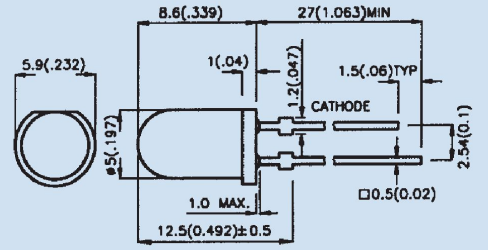
L-53-12.5

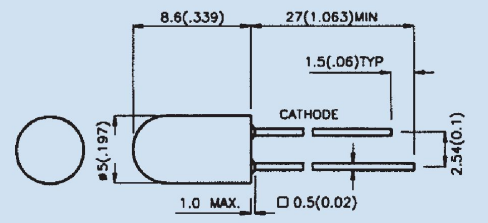
L-1503

Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-44HD	GaP	700	red diffused	0,8	2	80°	4 mm Round
L-44ID	GaAsP/GaP	625	red diffused	8	32	80°	
L-44GD	GaP	565	green diffused	3,2	20	80°	
L-44YD	GaAsP/GaP	590	yellow diffused	3,2	20	80°	
L-53HD	GaP	700	red diffused	2	8	60°	T-1 3/4 (5 mm) Round
L-53ID	GaAsP/GaP	625	red diffused	12,5	80	60°	
L-53IT	GaAsP/GaP	625	red transparent	50	200	30°	
L-53EC	GaAsP/GaP	625	water clear	50	200	30°	
L-53ED	GaAsP/GaP	625	orange diffused	12,5	80	60°	
L-53GD	GaP	565	green diffused	5	32	60°	
L-53GT	GaP	565	green transparent	20	150	30°	
L-53GC	GaP	565	water clear	20	150	30°	
L-53YD	GaAsP/GaP	590	yellow diffused	5	32	60°	
L-53YT	GaAsP/GaP	590	yellow transparent	20	80	30°	
L-53YC	GaAsP/GaP	590	water clear	20	80	30°	
L-53ND	GaAsP/GaP	610	orange diffused	12,5	80	60°	
L-53NT	GaAsP/GaP	610	orange transparent	50	200	30°	
L-53NC	GaAsP/GaP	610	water clear	50	200	30°	
L-53PGD	GaP	555	green diffused	2	8	60°	
L-53PGT	GaP	555	green transparent	5	32	30°	
L-53PGC	GaP	555	water clear	5	32	30°	
L-53SRSGW	GaAlAs GaP	660 565	white diffused	*80 *12,5	*200 *40	50°	
L-53HD-12.5	GaP	700	red diffused	2	8	60°	T-1 3/4 (5 mm) Round
L-53ID-12.5	GaAsP/GaP	625	red diffused	12,5	80	60°	
L-53ED-12.5	GaAsP/GaP	625	orange diffused	12,5	80	60°	
L-53GD-12.5	GaP	565	green diffused	5	32	60°	
L-53YD-12.5	GaAsP/GaP	590	yellow diffused	5	32	60°	
L-1503ID	GaAsP/GaP	625	red diffused	12,5	80	60°	T-1 3/4 (5 mm) Round
L-1503IT	GaAsP/GaP	625	red transparent	50	200	30°	
L-1503EC	GaAsP/GaP	625	water clear	50	200	30°	
L-1503GD	GaP	565	green diffused	5	32	60°	
L-1503GT	GaP	565	green transparent	20	150	30°	
L-1503GC	GaP	565	water clear	20	150	30°	
L-1503YD	GaAsP/GaP	590	yellow diffused	5	32	60°	
L-1503YT	GaAsP/GaP	590	yellow transparent	20	80	30°	
L-1503YC	GaAsP/GaP	590	water clear	20	80	30°	









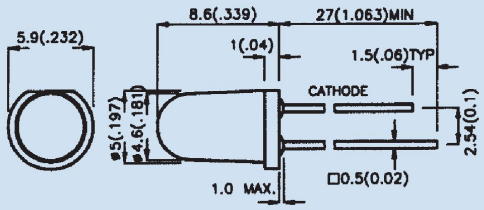
Caution! When operating both chips together, apply no more than 50% of the max. current to each chip. Refer to derating curve!

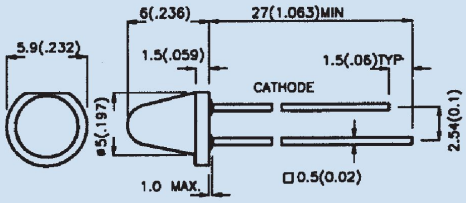
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

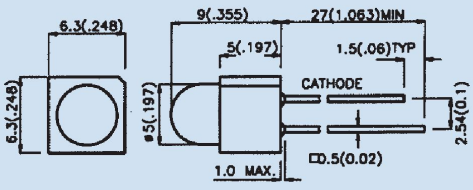
ROUND LED LAMPS

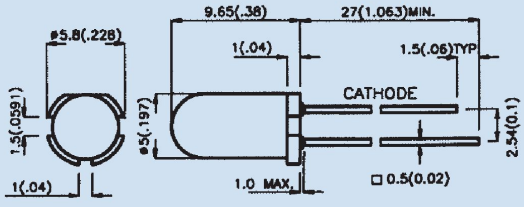
Kingbright®

Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-1513IT	GaAsP/GaP	625	red transparent	50	200	20°	T-1 3/4 (5 mm) Round
L-1513EC	GaAsP/GaP	625	water clear	50	200	20°	
L-1513GT	GaP	565	green transparent	20	150	20°	
L-1513GC	GaP	565	water clear	20	150	20°	
L-1513YT	GaAsP/GaP	590	yellow transparent	20	80	20°	
L-1513YC	GaAsP/GaP	590	water clear	20	80	20°	
L-63ID	GaAsP/GaP	625	red diffused	12,5	50	60°	T-1 3/4 (5 mm) Round
L-63IT	GaAsP/GaP	625	red transparent	32	125	30°	
L-63GD	GaP	565	green diffused	5	20	60°	
L-63GT	GaP	565	green transparent	20	80	30°	
L-63YD	GaAsP/GaP	590	yellow diffused	5	20	60°	
L-63YT	GaAsP/GaP	590	yellow transparent	20	80	30°	
L-63SRD	GaAlAs	660	red diffused	*100	*500	60°	
L-63SRT	GaAlAs	660	red transparent	*200	*500	30°	
L-63SRC	GaAlAs	660	water clear	*200	*700	30°	
L-453HD	GaP	700	red diffused	0,8	2	60°	T-1 3/4 (5 mm) Round
L-453ID	GaAsP/GaP	625	red diffused	12,5	32	60°	
L-453GD	GaP	565	green diffused	5	20	60°	
L-453YD	GaAsP/GaP	590	yellow diffused	5	20	60°	
L-1593EC	GaAsP/GaP	625	water clear	50	125	30°	T-1 3/4 (5 mm) Round
L-1593IT	GaAsP/GaP	625	red transparent	50	125	30°	
L-1593YC	GaAsP/GaP	590	water clear	20	60	30°	
L-1593YT	GaAsP/GaP	590	yellow transparent	20	60	30°	
L-1593GT	GaP	565	green transparent	*40	*100	30°	
L-1593SRC-D	GaAlAs	660	water clear	*500	*900	30°	
L-1593SRT-D	GaAlAs	660	red transparent	*500	*900	30°	









NOTES:
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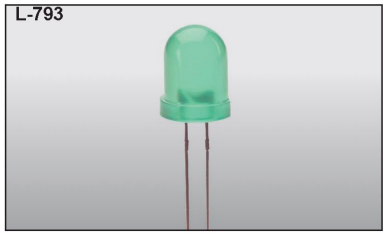
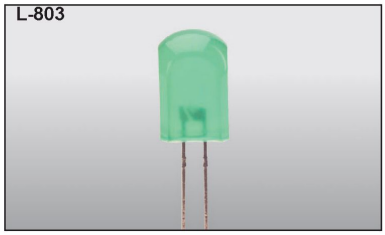
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

BIG LED LAMPS

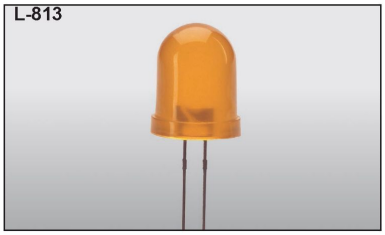
L-793



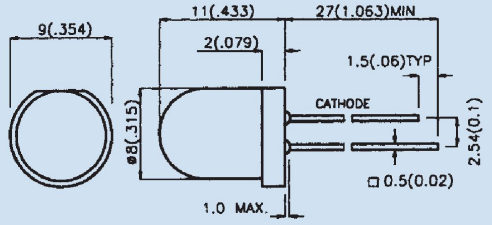
L-803

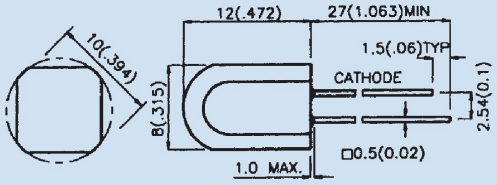


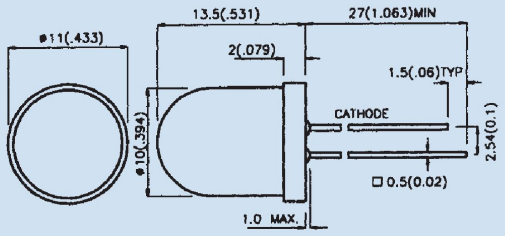
L-813



Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-793ID	GaAsP/GaP	625	red diffused	*40	*150	60°	8 mm Round
L-793ED	GaAsP/GaP	625	orange diffused	*40	*150	60°	
L-793GD	GaP	565	green diffused	*20	*70	60°	
L-793YD	GaAsP/GaP	590	yellow diffused	*20	*70	60°	
L-803ID	GaAsP/GaP	625	red diffused	*20	*100	45°	8 mm x 8 mm
L-803GD	GaP	565	green diffused	*20	*70	45°	
L-803YD	GaAsP/GaP	590	yellow diffused	*20	*70	45°	
L-803SRD	GaAlAs	660	red diffused	*100	*300	45°	
L-813ID	GaAsP/GaP	625	red diffused	*40	*150	60°	10 mm Round
L-813ED	GaAsP/GaP	625	orange diffused	*40	*150	60°	
L-813GD	GaP	565	green diffused	*20	*70	60°	
L-813YD	GaAsP/GaP	590	yellow diffused	*20	*70	60°	



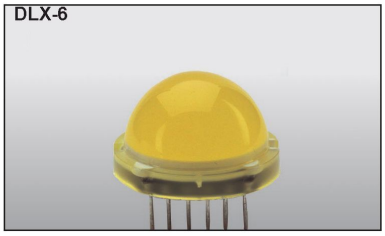




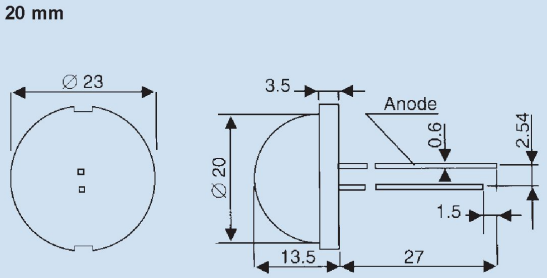
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

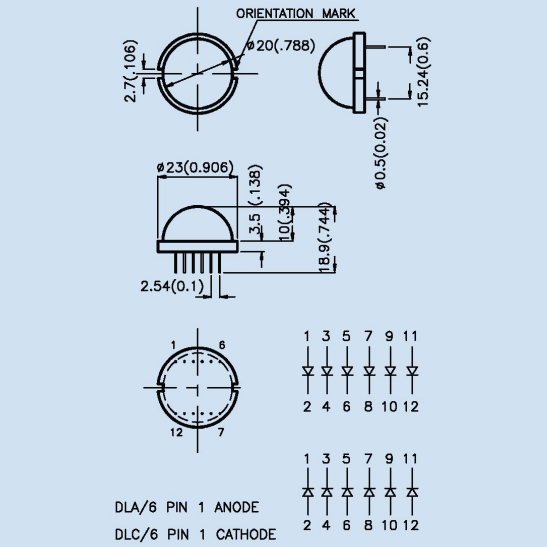
DLC-2

DLX-6



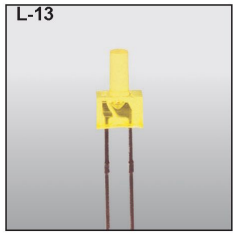
Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
DLC2-6ID	GaAsP/GaP	625	red diffused	4	13	120°	20 mm
DLC2-6GD	GaP	565	green diffused	8	40	120°	
DLC2-6YD	GaAsP/GaP	590	yellow diffused	2,5	8,3	120°	
DLC2-6ED	GaAsP/GaP	625	orange diffused	4	13	120°	
DLC2-6SGD	GaP	565	green diffused	*40	*75	120°	
DLC2-6SRD	GaAlAs	660	red diffused	*50	*80	120°	
DLA-6ID	GaAsP/GaP	625	red diffused	4	13	120°	20 mm
DLA-6GD	GaP	565	green diffused	8	40	120°	
DLA-6YD	GaAsP/GaP	590	yellow diffused	2,5	8,3	120°	
DLA-6ED	GaAsP/GaP	625	orange diffused	4	13	120°	
DLA-6SGD	GaP	565	green diffused	*40	*75	120°	
DLA-6SRD	GaAlAs	660	red diffused	*50	*80	120°	
DLC-6ID	GaAsP/GaP	625	red diffused	4	13	120°	
DLC-6GD	GaP	565	green diffused	8	40	120°	
DLC-6YD	GaAsP/GaP	590	yellow diffused	2,5	8,3	120°	
DLC-6ED	GaAsP/GaP	625	orange diffused	4	13	120°	
DLC-6SGD	GaP	565	green diffused	*40	*75	120°	
DLC-6SRD	GaAlAs	660	red diffused	*50	*80	120°	



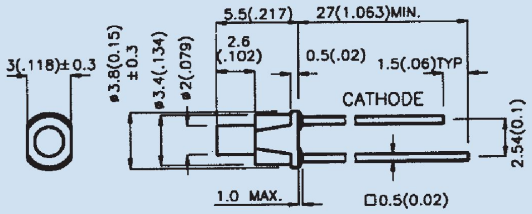


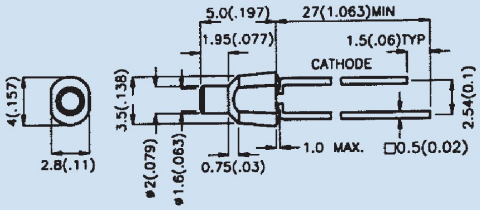
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

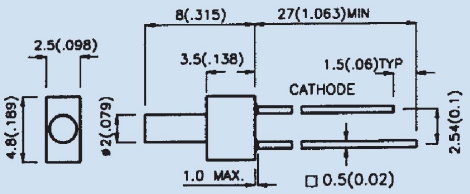
FLAT TOP LED LAMPS

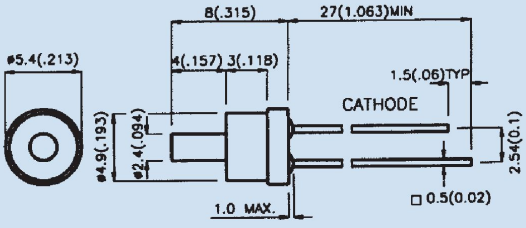


Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-1394HD	GaP	700	red diffused	0,5	2	70°	2 mm Flat Top
L-1394ID	GaAsP/GaP	625	red diffused	5	20	70°	
L-1394GD	GaP	565	green diffused	3,2	8	70°	
L-1394YD	GaAsP/GaP	590	yellow diffused	3,2	8	70°	
L-1034HD	GaP	700	red diffused	0,5	2	70°	2 mm Flat Top
L-1034ID	GaAsP/GaP	625	red diffused	5	20	70°	
L-1034GD	GaP	565	green diffused	2	8	70°	
L-1034YD	GaAsP/GaP	590	yellow diffused	2	8	70°	
L-13HD	GaP	700	red diffused	0,5	2	70°	2 mm Flat Top
L-13ID	GaAsP/GaP	625	red diffused	5	12,5	70°	
L-13GD	GaP	565	green diffused	3,2	12,5	70°	
L-13YD	GaAsP/GaP	590	yellow diffused	3,2	12,5	70°	
L-443HDT	GaP	700	red diffused	0,5	3,2	100°	2.4 mm Flat Top
L-443IDT	GaAsP/GaP	625	red diffused	3,2	12,5	100°	
L-443EDT	GaAsP/GaP	625	orange diffused	3,2	12,5	100°	
L-443GDT	GaP	565	green diffused	1,3	8	100°	
L-443YDT	GaAsP/GaP	590	yellow diffused	1,3	8	100°	







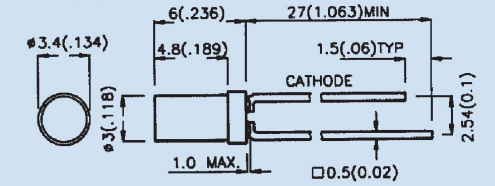


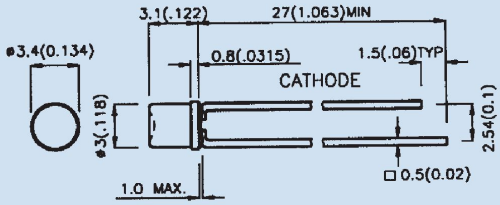
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

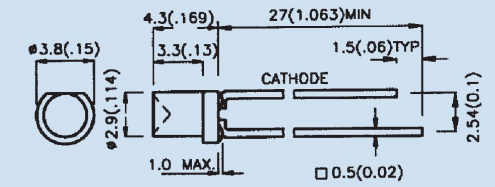
CYLINDRICAL LED LAMPS

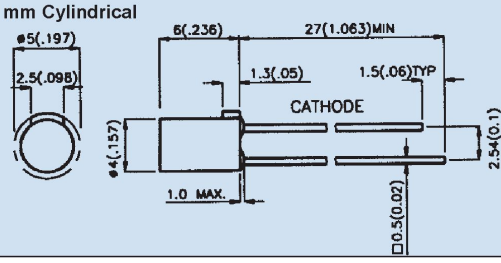
Kingbright®

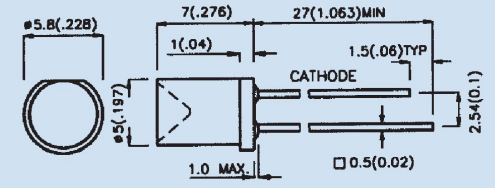
Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-424HDT	GaP	700	red diffused	0,5	3,2	100°	T-1 (3 mm) Cylindrical
L-424IDT	GaAsP/GaP	625	red diffused	3,2	12,5	100°	
L-424EDT	GaAsP/GaP	625	orange diffused	3,2	12,5	100°	
L-424GDT	GaP	565	green diffused	1,3	8	100°	
L-424YDT	GaAsP/GaP	590	yellow diffused	1,3	8	100°	
L-424SRDT	GaAlAs	660	red diffused	*40	*80	100°	
L-1334IT	GaAsP/GaP	625	red transparent	3,2	12,5	130°	T-1 (3 mm) Cylindrical
L-1334EC	GaAsP/GaP	625	water clear	3,2	12,5	130°	
L-1334GT	GaP	565	green transparent	3,2	12,5	130°	
L-1334GC	GaP	565	water clear	3,2	12,5	130°	
L-1334YT	GaAsP/GaP	590	yellow transparent	1,25	5	130°	
L-1334YC	GaAsP/GaP	590	water clear	1,25	5	130°	
L-1334SGT	GaP	565	green transparent	*5	*20	130°	
L-1334SGC	GaP	565	water clear	*5	*20	130°	
L-1334SRC	GaAlAs	660	water clear	*20	*80	130°	
L-1334SRT	GaAlAs	660	red transparent	*20	*80	130°	
L-1334SRWT	GaAlAs	660	white diffused	*20	*70	130°	
L-1334NT	GaAsP/GaP	610	orange transparent	3,2	12,5	130°	
L-1334NC	GaAsP/GaP	610	water clear	3,2	12,5	130°	
L-1334PGT	GaP	555	green transparent	1	4	130°	
L-1334PGC	GaP	555	water clear	1	4	130°	
L-474IT	GaAsP/GaP	625	red transparent	3,2	12,5	130°	T-1 (3 mm) Cylindrical
L-474EC	GaAsP/GaP	625	water clear	3,2	12,5	130°	
L-474GT	GaP	565	green transparent	2	8	130°	
L-474GC	GaP	565	water clear	2	8	130°	
L-474YT	GaAsP/GaP	590	yellow transparent	2	8	130°	
L-474YC	GaAsP/GaP	590	water clear	2	8	130°	
L-1413HDT	GaP	700	red diffused	0,32	2	100°	4 mm Cylindrical
L-1413GDT	GaP	565	green diffused	1,25	8	100°	
L-1413YDT	GaAsP/GaP	590	yellow diffused	1,25	8	100°	
L-1413IDT	GaAsP/GaP	625	red diffused	3,2	8	100°	
L-1413SRDT	GaAlAs	660	red diffused	*60	*100	100°	
L-493IT	GaAsP/GaP	625	red transparent	3,2	12,5	140°	T-1 3/4 (5 mm) Cylindrical
L-493EC	GaAsP/GaP	625	water clear	3,2	12,5	140°	
L-493GT	GaP	565	green transparent	2	8	140°	
L-493GC	GaP	565	water clear	2	8	140°	
L-493YT	GaAsP/GaP	590	yellow transparent	2	8	140°	
L-493YC	GaAsP/GaP	590	water clear	2	8	140°	











NOTES:
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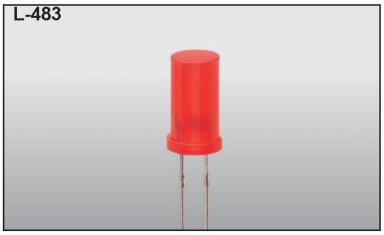
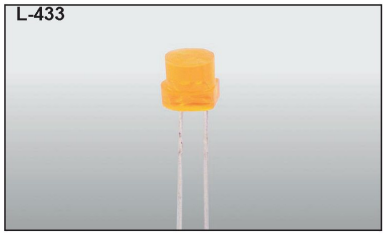
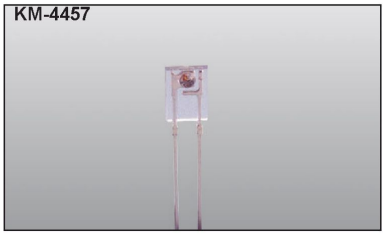
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

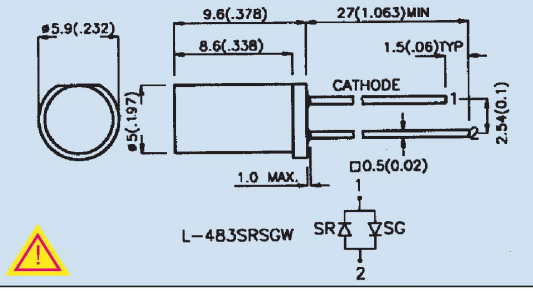
Kingbright® CYLINDRICAL LED LAMPS

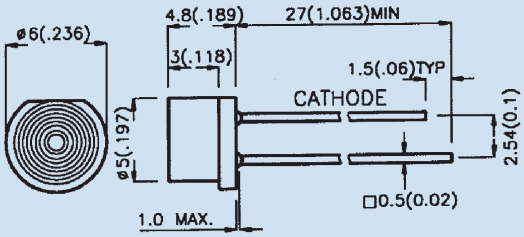






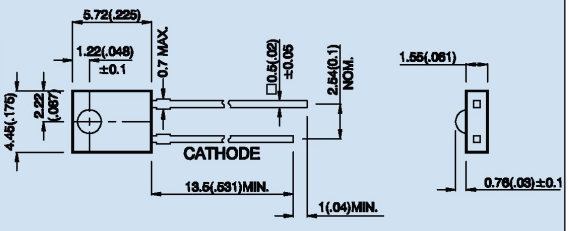
Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-483HDT	GaP	700	red diffused	0,5	3,2	100°	T-1 3/4 (5 mm) Cylindrical
L-483IDT	GaAsP/GaP	625	red diffused	3,2	12,5	100°	
L-483EDT	GaAsP/GaP	625	orange diffused	3,2	12,5	100°	
L-483GDT	GaP	565	green diffused	1,3	8	100°	
L-483YDT	GaAsP/GaP	590	yellow diffused	1,3	8	100°	
L-483SRSGW	GaAlAs	660	white diffused	*12,5	*60	80°	
	GaP	565		*5	*20		
L-433HDT	GaP	700	red diffused	1,25	3,2	100°	T-1 3/4 (5 mm) Spiral Round
L-433IDT	GaAsP/GaP	625	red diffused	5,0	15	100°	
L-433EDT	GaAsP/GaP	625	orange diffused	5,0	15	100°	
L-433GDT	GaP	565	green diffused	3,2	5	100°	
L-433YDT	GaAsP/GaP	590	yellow diffused	3,2	5	100°	
L-433SRDT	GaAlAs	660	red diffused	*40	*100	100°	





Kingbright® SIDE-VIEW LED LAMPS

Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
KM-4457ID	GaAsP/GaP	625	red diffused	8	50	170°	1,5 mm (Side Look)
KM-4457EC	GaAsP/GaP	625	water clear	12,5	60	150°	
KM-4457SGD	GaP	565	green diffused	8	40	170°	
KM-4457SGC	GaP	625	water clear	12,5	50	150°	
KM-4457YD	GaAsP/GaP	590	yellow diffused	3,2	20	170°	
KM-4457YC	GaAsP/GaP	590	water clear	8	40	150°	
KM-4457SRD	GaAlAs	625	red diffused	*100	*160	170°	
KM-4457SRC	GaAlAs	625	water clear	*160	*220	150°	



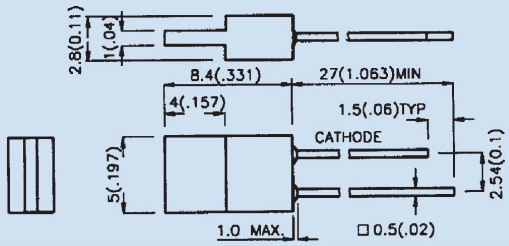
Caution! When operating both chips together, apply no more than 50% of the max. current to each chip. Refer to derating curve!

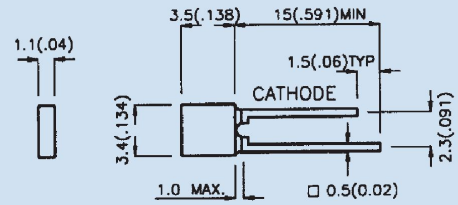
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

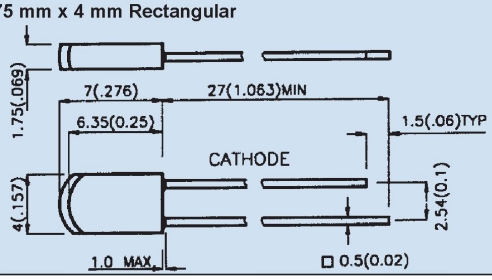
RECTANGULAR LED LAMPS

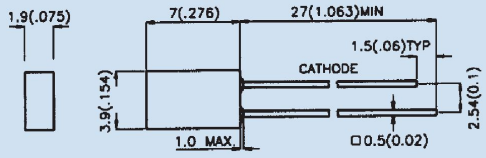
Kingbright®

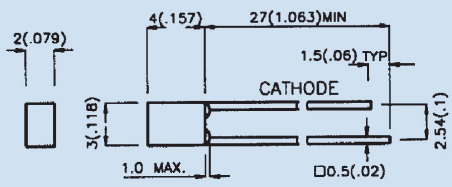
Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-1053HDT	GaP	700	red diffused	0,5	2	110°	1 mm x 5 mm Rectangular
L-1053IDT	GaAsP/GaP	625	red diffused	5	12,5	110°	
L-1053GDT	GaP	565	green diffused	2	8	110°	
L-1053YDT	GaAsP/GaP	590	yellow diffused	2	8	110°	
L-1002HD	GaP	700	red diffused	0,5	0,8	110°	1.1 mm x 3.4 mm Rectangular
L-1002ID	GaAsP/GaP	625	red diffused	1,25	5	110°	
L-1002GD	GaP	565	green diffused	0,5	5	110°	
L-1002YD	GaAsP/GaP	590	yellow diffused	0,5	5	110°	
L-1773HD	GaP	700	red diffused	0,8	3	100°	1.75 mm x 4 mm Rectangular
L-1773ID	GaAsP/GaP	625	red diffused	5	20	100°	
L-1773ED	GaAsP/GaP	625	orange diffused	5	20	100°	
L-1773GD	GaP	565	green diffused	5	20	100°	
L-1773YD	GaAsP/GaP	590	yellow diffused	3,2	12,5	100°	
L-1773ND	GaAsP/GaP	610	orange diffused	5	12,5	100°	
L-144HDT	GaP	700	red diffused	0,5	2	110°	1.9 mm x 3.9 mm Rectangular
L-144IDT	GaAsP/GaP	625	red diffused	3,2	20	110°	
L-144EDT	GaAsP/GaP	625	orange diffused	3,2	20	110°	
L-144GDT	GaP	565	green diffused	2	8	110°	
L-144YDT	GaAsP/GaP	590	yellow diffused	2	8	110°	
L-144SRDT	GaAlAs	660	red diffused	*40	*70	110°	
L-914HD	GaP	700	red diffused	0,2	0,5	100°	2 mm x 3 mm Rectangular
L-914HT	GaP	700	red transparent	0,5	1,25	90°	
L-914ED	GaAsP/GaP	625	orange diffused	2	12,5	100°	
L-914ET	GaAsP/GaP	625	orange transparent	3,2	20	90°	
L-914GD	GaP	565	green diffused	2	8	100°	
L-914GT	GaP	565	green transparent	5	12,5	90°	
L-914YD	GaAsP/GaP		yellow diffused	2	8	100°	
L-914YT	GaAsP/GaP		yellow transparent	5	12,5	90°	











NOTES:
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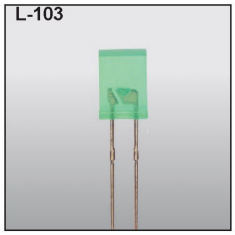
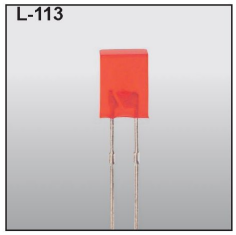
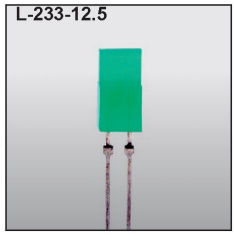
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

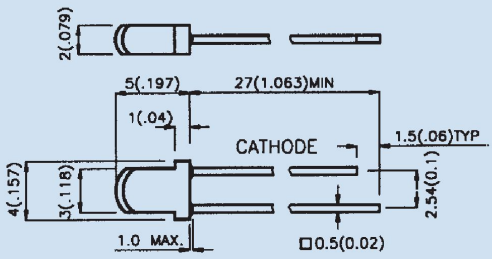
Kingbright® RECTANGULAR LED LAMPS

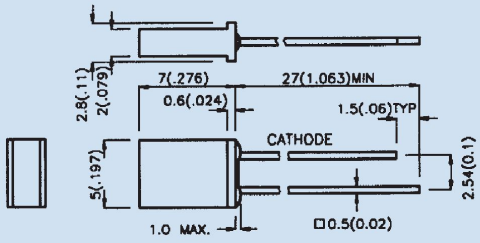


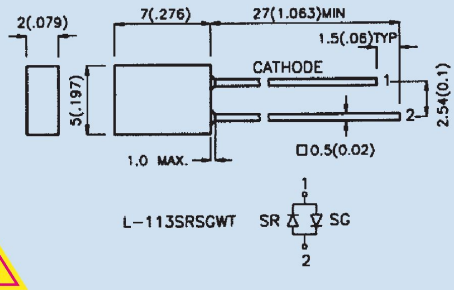


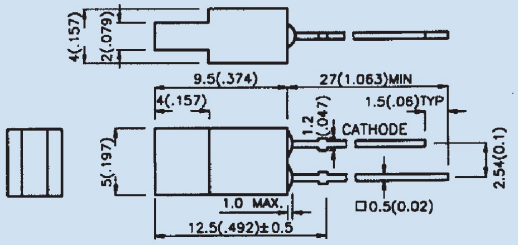


Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-169XHD	GaP	700	red diffused	1,25	5	100°	2 mm x 3 mm Rectangular
L-169XHT	GaP	700	red transparent	2	8	30°	
L-169XID	GaAsP/GaP	625	red diffused	8	32	100°	
L-169XIT	GaAsP/GaP	625	red transparent	12,5	50	30°	
L-169XGD	GaP	565	green diffused	5	20	100°	
L-169XGT	GaP	565	green transparent	5	32	30°	
L-169XYD	GaAsP/GaP	590	yellow diffused	5	20	100°	
L-169XYT	GaAsP/GaP	590	yellow transparent	5	32	30°	
L-169XPGD	GaP	555	green diffused	2	8	100°	
L-169XPGTL	GaP	555	green transparent	3,2	12,5	30°	
L-103HD	GaP	700	red diffused	0,5	2	110°	2 mm x 5 mm Rectangular
L-103ID	GaAsP/GaP	625	red diffused	3,2	12,5	110°	
L-103ED	GaAsP/GaP	625	orange diffused	3,2	12,5	110°	
L-103GD	GaP	565	green diffused	2	8	110°	
L-103YD	GaAsP/GaP	590	yellow diffused	2	8	110°	
L-103SRD	GaAlAs	660	red diffused	*40	*80	110°	
L-113HDT	GaP	700	red diffused	0,5	2	110°	2 mm x 5 mm Rectangular
L-113IDT	GaAsP/GaP	625	red diffused	3,2	12,5	110°	
L-113EDT	GaAsP/GaP	625	orange diffused	3,2	12,5	110°	
L-113GDT	GaP	565	green diffused	2	8	110°	
L-113YDT	GaAsP/GaP	590	yellow diffused	2	8	110°	
L-113SRDT	GaAlAs	660	red diffused	*40	*80	110°	
L-113SRSGWT	GaAlAs	660	white diffused	*30	*70	100°	
	GaP	565		*8	*20		
L-233HDT-12.5	GaP	700	red diffused	0,5	2	110°	2 mm x 5 mm Rectangular
L-233IDT-12.5	GaAsP/GaP	625	red diffused	3,2	12,5	110°	
L-233EDT-12.5	GaAsP/GaP	625	orange diffused	3,2	12,5	110°	
L-233GDT-12.5	GaP	565	green diffused	2	5	110°	
L-233YDT-12.5	GaAsP/GaP	590	yellow diffused	2	5	110°	









Caution! When operating both chips together, apply no more than 50% of the max. current to each chip. Refer to derating curve!

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

RECTANGULAR LED LAMPS

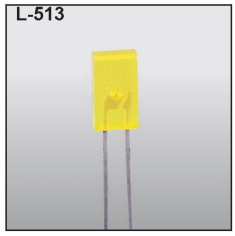
Kingbright®

L-153

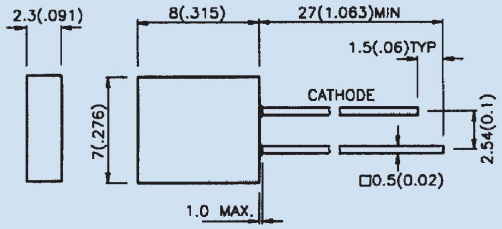
L-173

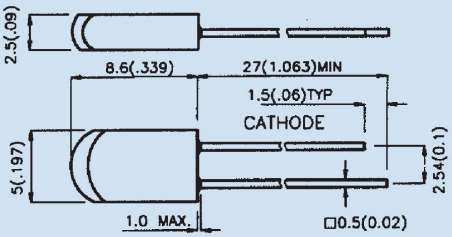
L-383

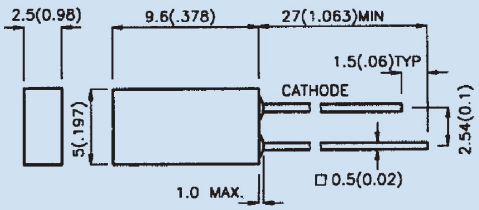
L-513

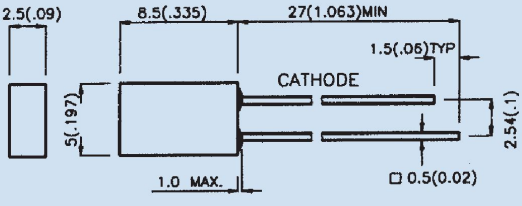


Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-153HDT	GaP	700	red diffused	0,8	1	110°	2.3 mm x 7 mm Rectangular
L-153IDT	GaAsP/GaP	625	red diffused	3,2	12,5	110°	
L-153EDT	GaAsP/GaP	625	orange diffused	3,2	12,5	110°	
L-153GDT	GaP	565	green diffused	1,3	8	110°	
L-153YDT	GaAsP/GaP	590	yellow diffused	1,3	8	110°	
L-153SRDT	GaAlAs	660	red diffused	*32	*80	110°	
L-173HD	GaP	700	red diffused	0,8	3	100°	2.5 mm x 5 mm Rectangular
L-173ID	GaAsP/GaP	625	red diffused	5	12,5	100°	
L-173ED	GaAsP/GaP	625	orange diffused	5	12,5	100°	
L-173GD	GaP	565	green diffused	2	8	100°	
L-173YD	GaAsP/GaP	590	yellow diffused	2	8	100°	
L-383HDT	GaP	700	red diffused	0,5	1,3	110°	2.5 mm x 5 mm Rectangular
L-383IDT	GaAsP/GaP	625	red diffused	3,2	12,5	110°	
L-383EDT	GaAsP/GaP	625	orange diffused	3,2	12,5	110°	
L-383GDT	GaP	565	green diffused	1,3	8	110°	
L-383YDT	GaAsP/GaP	590	yellow diffused	1,3	8	110°	
L-383SRDT	GaAlAs	660	red diffused	*40	*80	110°	
L-383SRWT	GaAlAs	660	white diffused	*40	*80	110°	
L-383SGWT	GaP	565	white diffused	*8	*20	110°	
L-513HDT	GaP	700	red diffused	0,5	2	110°	2.5 mm x 5 mm Rectangular
L-513IDT	GaAsP/GaP	625	red diffused	3,2	12,5	110°	
L-513EDT	GaAsP/GaP	625	orange diffused	3,2	12,5	110°	
L-513GDT	GaP	565	green diffused	2	8	110°	
L-513YDT	GaAsP/GaP	590	yellow diffused	2	8	110°	
L-513SGDT	GaP	565	green diffused	*8	*12,5	110°	









NOTES:
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2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

RECTANGULAR LED LAMPS

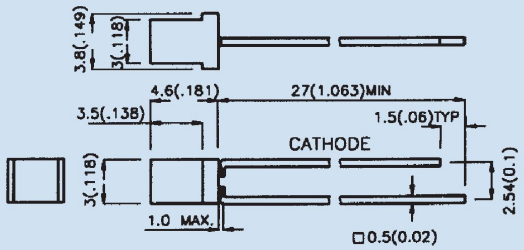
L-704

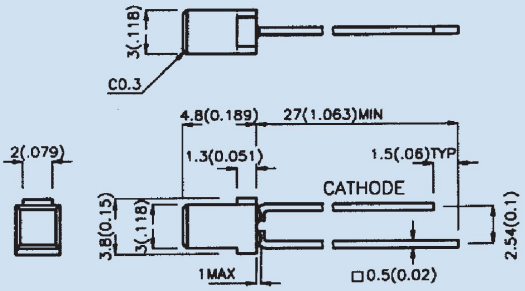
L-714

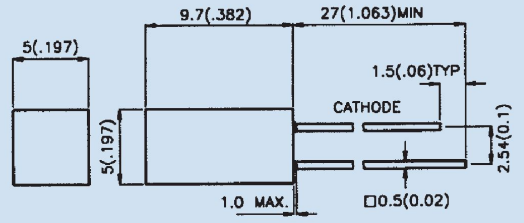
L-1553

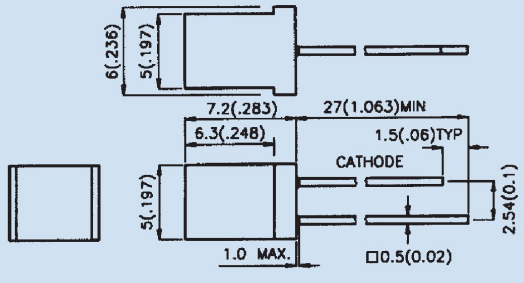
L-503

Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-704HD	GaP	700	red diffused	0,8	1,25	110°	3 mm x 3 mm Square
L-704ID	GaAsP/GaP	625	red diffused	3,2	8	110°	
L-704ED	GaAsP/GaP	625	orange diffused	3,2	8	110°	
L-704GD	GaP	565	green diffused	2	8	110°	
L-704YD	GaAsP/GaP	590	yellow diffused	2	8	110°	
L-704SRD	GaAlAs	660	red diffused	*30	*70	110°	
L-714HD	GaP	700	red diffused	0,8	1,25	110°	3 mm x 3 mm Square
L-714ID	GaAsP/GaP	625	red diffused	3,2	8	110°	
L-714ED	GaAsP/GaP	625	orange diffused	3,2	8	110°	
L-714GD	GaP	565	green diffused	2	8	110°	
L-714YD	GaAsP/GaP	590	yellow diffused	2	8	110°	
L-714SRD	GaAlAs	660	red diffused	*30	*70	110°	
L-1553HDT	GaP	700	red diffused	0,5	2	110°	5 mm x 5 mm Square
L-1553IDT	GaAsP/GaP	625	red diffused	3,2	12,5	110°	
L-1553EDT	GaAsP/GaP	625	orange diffused	3,2	12,5	110°	
L-1553GDT	GaP	565	green diffused	1,3	8	110°	
L-1553YDT	GaAsP/GaP	590	yellow diffused	1,3	8	110°	
L-1553SRDT	GaAlAs	660	red diffused	*32	*100	110°	
L-503HDT	GaP	700	red diffused	0,5	2	110°	5 mm x 5 mm Square
L-503IDT	GaAsP/GaP	625	red diffused	3,2	12,5	110°	
L-503GDT	GaP	565	green diffused	1,3	8	110°	
L-503YDT	GaAsP/GaP	590	yellow diffused	1,3	8	110°	







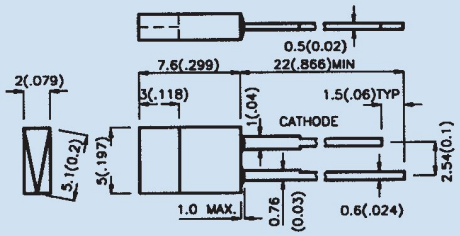


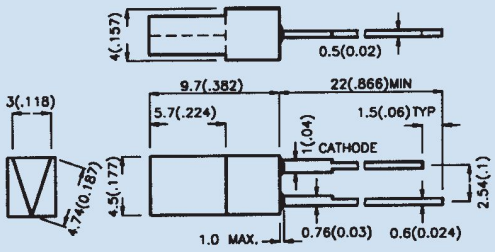
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

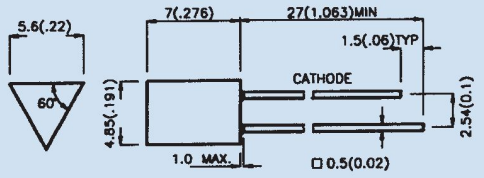
TRIANGULAR LED LAMPS

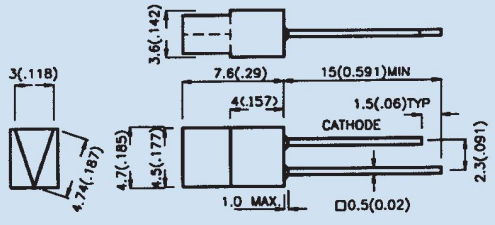
Kingbright®

Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-301HD	GaP	700	red diffused	0,32	0,8	100°	2 mm x 5 mm Triangular
L-301ID	GaAsP/GaP	625	red diffused	2	5	100°	
L-301GD	GaP	565	green diffused	0,5	2	100°	
L-301YD	GaAsP/GaP	590	yellow diffused	0,5	2	100°	
L-311HD	GaP	700	red diffused	0,32	0,8	100°	3 mm x 4.5 mm Triangular
L-311ID	GaAsP/GaP	625	red diffused	2	5	100°	
L-311GD	GaP	565	green diffused	0,5	2	100°	
L-311YD	GaAsP/GaP	590	yellow diffused	0,5	2	100°	
L-323HD	GaP	700	red diffused	0,5	0,8	100°	5.6 mm x 4.9 mm Triangular
L-323ID	GaAsP/GaP	625	red diffused	5	12,5	100°	
L-323ED	GaAsP/GaP	625	orange diffused	5	12,5	100°	
L-323GD	GaP	565	green diffused	2	8	100°	
L-323YD	GaAsP/GaP	590	yellow diffused	2	5	100°	
L-362HD	GaP	700	red diffused	0,5	0,8	100°	3 mm x 4.5 mm Triangular
L-362ID	GaAsP/GaP	625	red diffused	2	5	100°	
L-362GD	GaP	565	green diffused	1,25	3,2	100°	
L-362YD	GaAsP/GaP	590	yellow diffused	1,25	3,2	100°	









NOTES:
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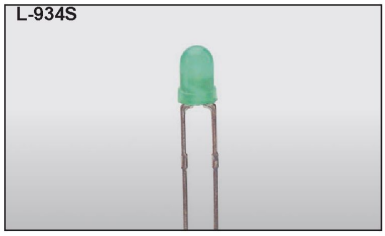
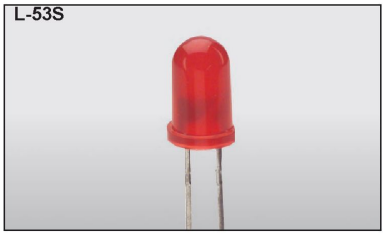
SUPER BRIGHT LED LAMPS

L-93S

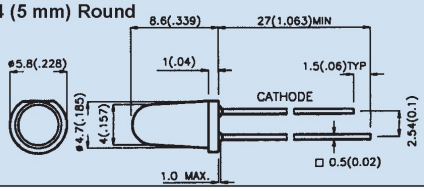
L-934S

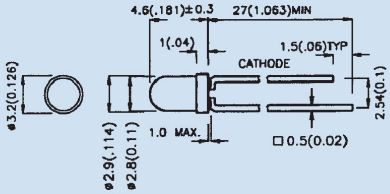


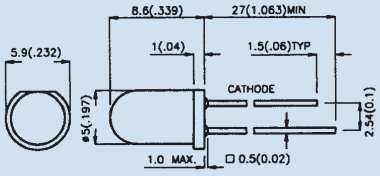
L-53S



Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-93SGT	GaP	565	green transparent	100	200	20°	T-1 3/4 (5 mm) Round
L-93SGC	GaP	565	water clear	100	200	20°	
L-93SRT	GaAlAs	660	red transparent	500	1300	20°	
L-93SRC-E	GaAlAs	660	water clear	2000	3500	20°	
L-934SGC	GaP	565	water clear	100	300	50°	T-1 3/4 (3 mm) Round
L-934SGD	GaP	565	green diffused	40	60	50°	
L-934SEC	InGaAlP	620	water clear	500	2000	50°	
L-934SET	InGaAlP	620	orange transparent	500	2000	50°	
L-934SED	InGaAlP	620	orange diffused	200	700	50°	
L-934SYC	InGaAlP	595	water clear	200	1300	50°	
L-934SYT	InGaAlP	595	yellow transparent	200	1300	50°	
L-934SYD	InGaAlP	595	yellow diffused	100	400	50°	
L-934SRC-C	GaAlAs	660	water clear	360	500	50°	
L-934SRC-D	GaAlAs	660	water clear	500	700	50°	
L-934SRC-E	GaAlAs	660	water clear	700	1000	50°	
L-934SRC-F	GaAlAs	660	water clear	1000	1200	50°	
L-934SRC-G	GaAlAs	660	water clear	1200	1400	50°	
L-934SRC-H	GaAlAs	660	water clear	1400	1800	50°	
L-934SRC-J	GaAlAs	660	water clear	1800	2500	50°	
L-934SRD-C	GaAlAs	660	red diffused	90	100	60°	
L-934SRD-D	GaAlAs	660	red diffused	100	200	60°	
L-934SRD-E	GaAlAs	660	red diffused	200	300	60°	
L-934SRD-F	GaAlAs	660	red diffused	300	400	60°	
L-934SRD-G	GaAlAs	660	red diffused	400	600	60°	
L-934SRD-H	GaAlAs	660	red diffused	600	1000	60°	
L-934SRD-J	GaAlAs	660	red diffused	1000	1300	60°	
L-934SURC	InGaAlP	640	water clear	500	1300	50°	
L-934SURC-E	InGaAlP	640	water clear	1000	2000	50°	
L-53SGC	GaP	565	water clear	100	300	30°	T-1 3/4 (5 mm) Round
L-53SGD	GaP	565	green diffused	20	60	60°	
L-53SEC	InGaAlP	620	water clear	700	3000	30°	
L-53SET	InGaAlP	620	orange transparent	700	3000	30°	
L-53SED	InGaAlP	620	orange diffused	400	1000	60°	
L-53SYC	InGaAlP	595	water clear	400	2500	30°	
L-53SYT	InGaAlP	595	yellow transparent	400	2500	30°	
L-53SYD	InGaAlP	595	yellow diffused	100	500	60°	
L-53SRC-C	GaAlAs	660	water clear	500	1000	30°	
L-53SRC-DU	GaAlAs	660	water clear	1000	1300	30°	
L-53SRC-DV	GaAlAs	660	water clear	1300	1600	30°	
L-53SRC-DW	GaAlAs	660	water clear	1600	2000	30°	
L-53SRC-E	GaAlAs	660	water clear	2000	3500	30°	
L-53SRC-F	GaAlAs	660	water clear	3500	4500	30°	
L-53SRD-C	GaAlAs	660	red diffused	110	200	60°	
L-53SRD-D	GaAlAs	660	red diffused	200	300	60°	
L-53SRD-E	GaAlAs	660	red diffused	300	500	30°	
L-53SRD-F	GaAlAs	660	red diffused	500	700	60°	
L-53SRD-G	GaAlAs	660	red diffused	700	1000	60°	
L-53SRD-H	GaAlAs	660	red diffused	1000	1600	60°	
L-53SURC	InGaAlP	640	water clear	1300	3000	30°	
L-53SURC-E	InGaAlP	640	water clear	1600	3500	30°	







NOTES:
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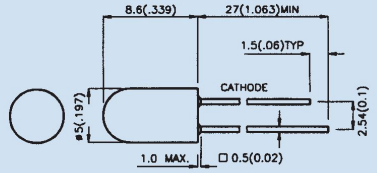
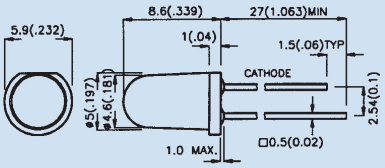
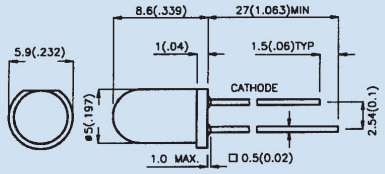
SUPER BRIGHT LED LAMPS

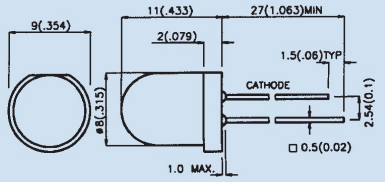
Kingbright®

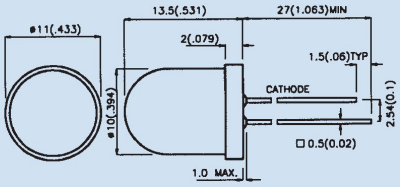
Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-1503SGC	GaP	565	water clear	100	300	30°	T-1 3/4 (5 mm) Round
L-1503SGT	GaP	565	green transparent	100	200	30°	
L-1503SRC-C	GaAlAs	660	water clear	500	1000	30°	
L-1503SRC-D	GaAlAs	660	water clear	1000	2000	30°	
L-1503SRC-E	GaAlAs	660	water clear	2000	2500	30°	
L-1503SRC-F	GaAlAs	660	water clear	3500	4500	30°	
L-1503SRD	GaAlAs	660	red diffused	100	500	60°	
L-1513SGC	GaP	565	water clear	100	300	20°	T-1 3/4 (5 mm) Round
L-1513SGT	GaP	565	green transparent	100	200	20°	
L-1513SRC-C	GaAlAs	660	water clear	500	1000	20°	
L-1513SRC-D	GaAlAs	660	water clear	1000	2000	20°	
L-1513SRC-E	GaAlAs	660	water clear	2000	3500	20°	
L-1513SRC-F	GaAlAs	660	water clear	3500	4500	20°	
L-1513SRD	GaAlAs	660	red diffused	100	500	30°	
L-1543SGC	GaP	565	water clear	70	300	50°	T-1 3/4 (5 mm) Round
L-1543SRC-A	GaAlAs	660	water clear	100	200	50°	
L-1543SRC-B	GaAlAs	660	water clear	200	400	50°	
L-1543SRC-C	GaAlAs	660	water clear	400	700	50°	
L-1543SRC-D	GaAlAs	660	water clear	700	1000	50°	
L-1543SRC-E	GaAlAs	660	water clear	1000	2500	50°	
L-793SRC-B	GaAlAs	660	water clear	500	1000	40°	8 mm Round
L-793SRC-C	GaAlAs	660	water clear	1000	1600	40°	
L-793SRC-D	GaAlAs	660	water clear	1600	2000	40°	
L-793SRC-E	GaAlAs	660	water clear	2000	3000	40°	
L-793SRC-F	GaAlAs	660	water clear	3000	4500	40°	
L-793SRD-B	GaAlAs	660	red diffused	120	200	60°	
L-793SRD-C	GaAlAs	660	red diffused	200	350	60°	
L-793SRD-D	GaAlAs	660	red diffused	350	450	60°	
L-793SRD-E	GaAlAs	660	red diffused	450	550	60°	
L-793SRD-F	GaAlAs	660	red diffused	550	650	60°	
L-793SRD-G	GaAlAs	660	red diffused	650	800	60°	
L-793SRD-H	GaAlAs	660	red diffused	800	1300	60°	
L-813SRC-B	GaAlAs	660	water clear	500	1000	40°	10 mm Round
L-813SRC-C	GaAlAs	660	water clear	1000	1600	40°	
L-813SRC-D	GaAlAs	660	water clear	1600	2000	40°	
L-813SRC-E	GaAlAs	660	water clear	2000	3000	40°	
L-813SRC-F	GaAlAs	660	water clear	3000	4500	40°	
L-813SRD-B	GaAlAs	660	red diffused	120	200	60°	
L-813SRD-C	GaAlAs	660	red diffused	200	350	60°	
L-813SRD-D	GaAlAs	660	red diffused	350	450	60°	
L-813SRD-E	GaAlAs	660	red diffused	450	550	60°	
L-813SRD-F	GaAlAs	660	red diffused	550	650	60°	
L-813SRD-G	GaAlAs	660	red diffused	650	800	60°	
L-813SRD-H	GaAlAs	660	red diffused	800	1300	60°	





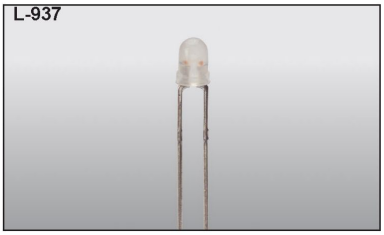


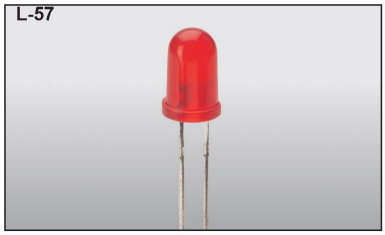


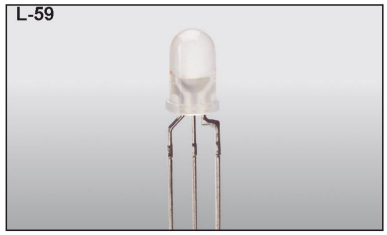


NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

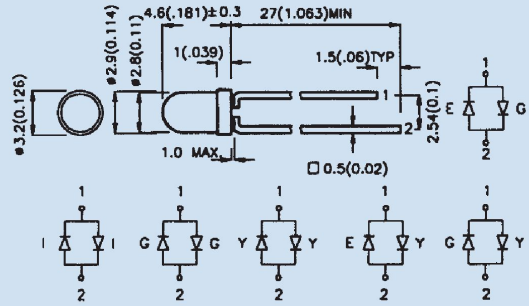
BI-COLOUR & BI-POLAR LED LAMPS

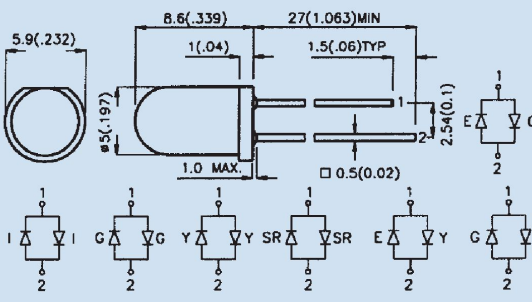


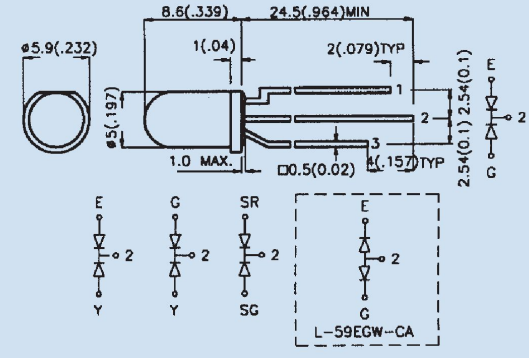




Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA Min.	Iv (mcd) @20mA Typ.	Viewing Angle 2θ1/2	Dimension
L-937EGW	GaAsP/GaP	625	white diffused	8	40	60°	T-1 (3 mm) Round
	GaP	565		8	40		
L-937EYW	GaAsP/GaP	625	white diffused	8	40	60°	
	GaAsP/GaP	590		5	20		
L-937GYW	GaP	565	white diffused	8	40	60°	
	GaAsP/GaP	590		5	20		
L-937IID	GaAsP/GaP	625	red diffused	8	40	60°	
	GaAsP/GaP	625		8	40		
L-937GGD	GaP	565	green diffused	5	20	60°	
	GaP	565		5	20		
L-937YYD	GaAsP/GaP	590	yellow diffused	5	20	60°	
	GaAsP/GaP	590		5	20		
L-57EGW	GaAsP/GaP	625	white diffused	20	50	60°	T-1 3/4 (5 mm) Round
	GaP	565		12,5	40		
L-57EYW	GaAsP/GaP	625	white diffused	20	50	60°	
	GaP	590		5	20		
L-57GYW	GaP	565	white diffused	12,5	40	60°	
	GaAsP/GaP	590		5	20		
L-57IID	GaAsP/GaP	625	red diffused	8	40	60°	
	GaAsP/GaP	625		8	40		
L-57GGD	GaP	565	green diffused	5	20	60°	
	GaP	565		5	20		
L-57YYD	GaAsP/GaP	590	yellow diffused	5	20	60°	
	GaAsP/GaP	590		5	20		
L-57SRSRD	GaAlAs	660	red diffused	80	200	60°	
	GaAlAs	660		80	200		
L-59EGW	GaAsP/GaP	625	white diffused	20	90	60°	T-1 3/4 (5 mm) Round
	GaP	565		20	70		
L-59EGW-CA	GaAsP/GaP	625	white diffused	3,2	8	60°	
	GaP	565		3,2	8		
L-59EYW	GaAsP/GaP	625	white diffused	20	90	60°	
	GaAsP/GaP	590		20	60		
L-59GYW	GaP	565	white diffused	20	70	60°	
	GaAsP/GaP	590		20	60		
L-59SRSGW	GaAlAs	660	white diffused	100	300	60°	
	GaP	565		40	80		
L-59EGC	GaAsP/GaP	625	water clear	100	300	24°	
	GaP	565		50	200		
L-59EYC	GaAsP/GaP	625	water clear	100	300	24°	
	GaAsP/GaP	590		30	80		
L-59GYC	GaP	565	water clear	50	200	24°	
	GaAsP/GaP	590		30	80		
L-59SRSGC	GaAlAs	660	water clear	300	700	24°	
	GaP	565		80	200		





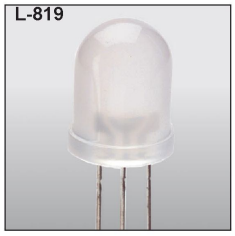


Caution! When operating both chips together, apply no more than 50% of the max. current to each chip. Refer to derating curve!

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

BI-COLOUR & BI-POLAR LED LAMPS

Kingbright®



Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA Min.	Iv (mcd) @20mA Typ.	Viewing Angle 2θ1/2	Dimension
L-115WEGW	GaAsP/GaP	625	white diffused	12,5	60	60°	T-1 (3 mm) Round
	GaP	565		12,5	50		
L-115WEYW	GaAsP/GaP	625	white diffused	12,5	60	60°	
	GaAsP/GaP	590		8	40		
L-115WGYW	GaP	565	white diffused	12,5	50	60°	
	GaAsP/GaP	590		8	40		
L-5LEGW-12.3SF	GaAsP/GaP	625	white diffused	20	90	60°	T-1 3/4 (5 mm) Round
	GaP	565		20	70		
L-5LEYW-12.3SF	GaAsP/GaP	625	white diffused	20	90	60°	
	GaAsP/GaP	590		20	60		
L-5LGYW-12.3SF	GaP	565	white diffused	20	70	60°	
	GaAsP/GaP	590		20	60		
L-119EGW	GaAsP/GaP	625	white diffused	8	40	110°	2 mm x 5 mm Rectangular
	GaP	565		5	20		
L-119EYW	GaAsP/GaP	625	white diffused	8	40	110°	
	GaAsP/GaP	590		5	20		
L-119GYW	GaP	565	white diffused	5	20	110°	
	GaAsP/GaP	590		5	20		
L-799EGW	GaAsP/GaP	625	white diffused	30	90	50°	8 mm Round
	GaP	565		20	60		
L-799EYW	GaAsP/GaP	625	white diffused	30	90	50°	
	GaAsP/GaP	590		20	60		
L-799GYW	GaP	565	white diffused	20	60	50°	
	GaAsP/GaP	590		20	60		
L-799SRSGW	GaAlAs	660	white diffused	100	300	50°	
	GaP	565		40	70		
L-819EGW	GaAsP/GaP	625	white diffused	30	90	50°	10 mm Round
	GaP	565		20	60		
L-819EYW	GaAsP/GaP	625	white diffused	30	90	50°	
	GaAsP/GaP	590		20	60		
L-819GYW	GaP	565	white diffused	20	60	50°	
	GaAsP/GaP	590		20	60		
L-819SRSGW	GaAlAs	660	white diffused	100	300	50°	
	GaP	565		40	70		
L-819IID	GaAsP/GaP	625	red diffused	20	90	50°	
	GaAsP/GaP	625		20	90		
L-819GGD	GaP	565	green diffused	12,5	60	50°	
	GaP	565		12,5	60		
L-819YYD	GaAsP/GaP	590	yellow diffused	12,5	60	50°	
	GaAsP/GaP	590		12,5	60		

Caution! When operating both chips together, apply no more than 50% of the max. current to each chip. Refer to derating curve!

NOTES:
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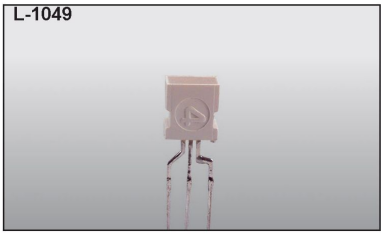
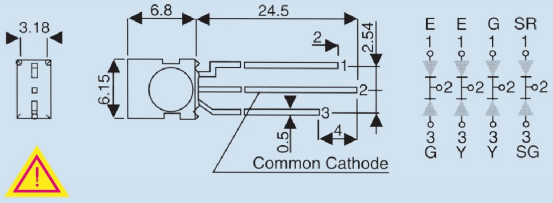
Kingbright® BI-COLOUR & BI-POLAR LED LAMPS

L-1049

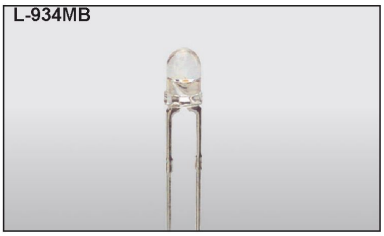


Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-1049EGW	GaAsP/GaP	625	white diffused	8	20	100°	3.65 mm x 6.15 mm
	GaP	565		2	8	100°	
L-1049EYW	GaAsP/GaP	625	white diffused	8	20	100°	
	GaAsP/GaP	590		2	8	100°	
L-1049GYW	GaP	565	white diffused	2	8	100°	
	GaAsP/GaP	590		2	8	100°	
L-1049SRSGW	GaAlAs	660	white diffused	32	100	100°	
	GaP	565		20	50	100°	

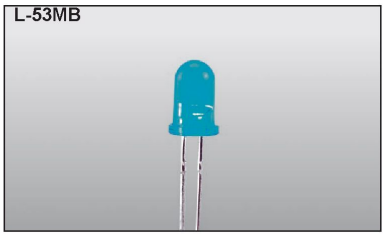


Kingbright® BLUE LED LAMPS

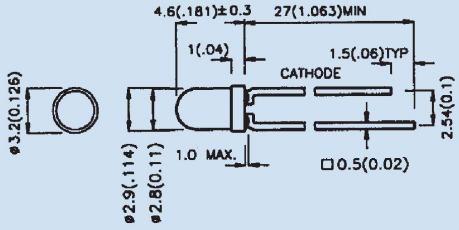
L-934MB



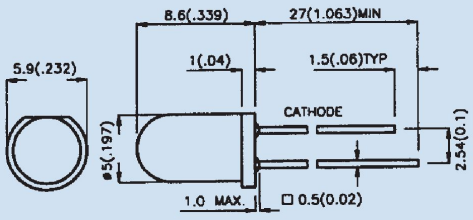
L-53MB



Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-934MBDL	GaN	430	blue diffused	12,5	40	60°	T-1 (3 mm) Round
L-934MBTL	GaN	430	blue transparent	20	60	20°	
L-934MBC	GaN	430	water clear	20	90	20°	



L-53MBDL	GaN	430	blue diffused	20	60	60°	T-1 3/4 (5 mm) Round
L-53MBTL	GaN	430	blue transparent	20	100	16°	
L-53MBC	GaN	430	water clear	40	150	16°	



Caution! When operating both chips together, apply no more than 50% of the max. current to each chip. Refer to derating curve!

NOTES:
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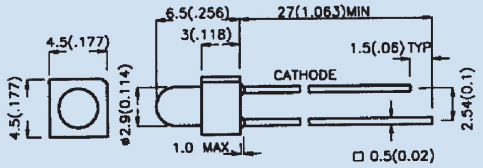
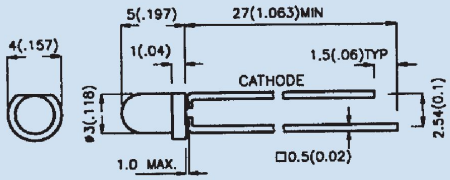
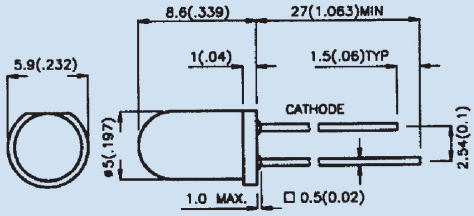
FLASHING LED LAMPS

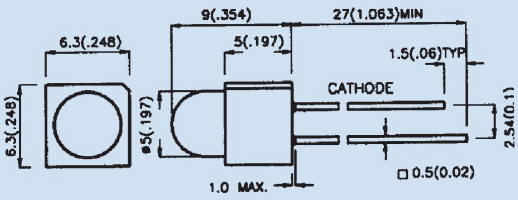
Kingbright®

Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) V_F=9V		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-616BHD	GaP	700	red diffused	1,3	3,2	60°	T-1 (3 mm) Round
L-616BID	GaAsP/GaP	625	red diffused	12,5	32	60°	
L-616BGD	GaP	565	green diffused	5	20	60°	
L-616BYD	GaAsP/GaP	590	yellow diffused	5	20	60°	
L-616BSRD-B	GaAlAs	660	red diffused	100	300	60°	
L-36BHD	GaP	700	red diffused	1,3	3,2	60°	T-1 (3 mm) Round
L-36BID	GaAsP/GaP	625	red diffused	12,5	32	60°	
L-36BGD	GaP	565	green diffused	5	20	60°	
L-36BYD	GaAsP/GaP	590	yellow diffused	5	20	60°	
L-36BSRD-B	GaAlAs	660	red diffused	100	300	60°	
L-56BHD	GaP	700	red diffused	2	8	60°	T-1 3/4 (5 mm) Round
L-56BID	GaAsP/GaP	625	red diffused	20	80	60°	
L-56BGD	GaP	565	green diffused	5	32	60°	
L-56BYD	GaAsP/GaP	590	yellow diffused	5	32	60°	
L-56BSRD-B	GaAlAs	660	red diffused	100	300	60°	
L-456BHD	GaP	700	red diffused	0,8	2	60°	T-1 3/4 (5 mm) Round
L-456BID	GaAsP/GaP	625	red diffused	12,5	32	60°	
L-456BGD	GaP	565	green diffused	5	20	60°	
L-456BYD	GaAsP/GaP	590	yellow diffused	5	20	60°	
L-456BSRD-B	GaAlAs	660	red diffused	100	300	60°	









NOTES:
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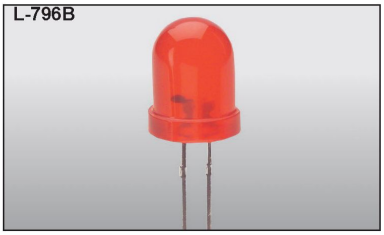
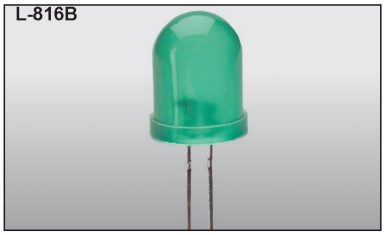
FLASHING LED LAMPS

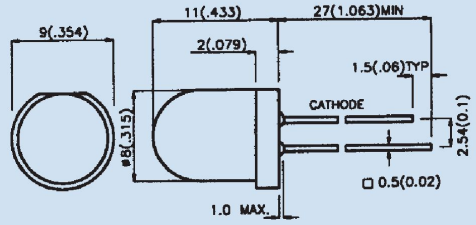
L-796B

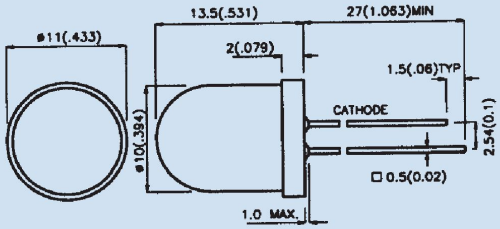


L-816B



Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) V_F=9V		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-796BID	GaAsP/GaP	625	red diffused	20	100	60°	8 mm Round
L-796BGD	GaP	565	green diffused	20	70	60°	
L-796BYD	GaAsP/GaP	590	yellow diffused	20	70	60°	
L-796BSRD-B	GaAlAs	660	red diffused	100	400	60°	
L-796BSRC-B	GaAlAs	660	water clear	500	1000	40°	
L-816BID	GaAsP/GaP	625	red diffused	20	100	60°	10 mm Round
L-816BGD	GaP	565	green diffused	20	70	60°	
L-816BYD	GaAsP/GaP	590	yellow diffused	20	70	60°	
L-816BSRD-B	GaAlAs	660	red diffused	100	400	60°	
L-816BSRC-B	GaAlAs	660	water clear	500	1000	40°	





NOTES:
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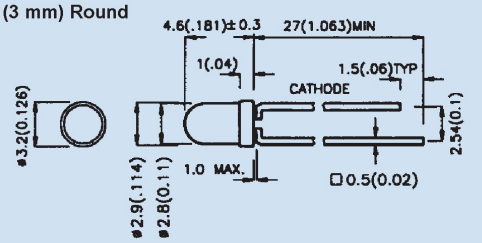
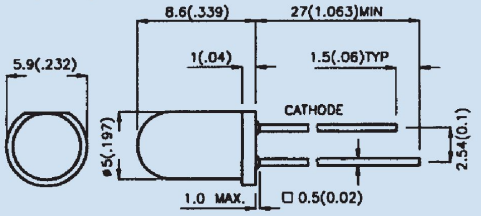
LOW CURRENT LED LAMPS — Kingbright®

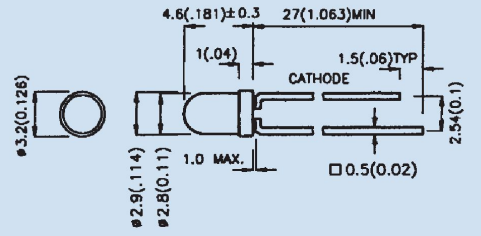
Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @2mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-934LID	GaAsP/GaP	625	red diffused	0,8	5	60°	T-1 (3 mm) Round
L-934LGD	GaP	565	green diffused	0,8	3,2	60°	
L-934LYD	GaAsP/GaP	590	yellow diffused	0,8	3,2	60°	
L-934LSRD	GaAlAs	660	red diffused	8	20	60°	
L-53LID	GaAsP/GaP	625	red diffused	0,8	5	60°	T-1 3/4 (5 mm) Round
L-53LGD	GaP	565	green diffused	0,8	3,2	60°	
L-53LYD	GaAsP/GaP	590	yellow diffused	0,8	3,2	60°	
L-53LSRD	GaAlAs	660	red diffused	8	20	60°	

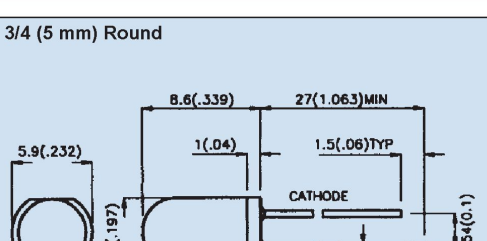




RESISTOR LED LAMPS — Kingbright®

Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) VF=5V * VF=12V		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-934ID-5V	GaAsP/GaP	625	red diffused	8	50	60°	T-1 (3 mm) Round
L-934ID-12V	GaAsP/GaP	625	red diffused	*8	*50	60°	
L-934GD-5V	GaP	565	green diffused	8	32	60°	
L-934GD-12V	GaP	565	green diffused	*8	*32	60°	
L-934YD-5V	GaAsP/GaP	590	yellow diffused	8	32	60°	
L-934YD-12V	GaAsP/GaP	590	yellow diffused	*8	*32	60°	
L-934SGD-5V	GaP	565	green diffused	12,5	32	60°	
L-934SGD-12V	GaP	565	green diffused	*12,5	*32	60°	
L-934SRD-5V	GaAlAs	660	red diffused	70	300	60°	
L-934SRD-12V	GaAlAs	660	red diffused	*70	*300	60°	
L-53ID-5V	GaAsP/GaP	625	red diffused	12,5	80	60°	T-1 3/4 (5 mm) Round
L-53ID-12V	GaAsP/GaP	625	red diffused	*12,5	*80	60°	
L-53GD-5V	GaP	565	green diffused	5	32	60°	
L-53GD-12V	GaP	565	green diffused	*5	*32	60°	
L-53YD-5V	GaAsP/GaP	590	yellow diffused	5	32	60°	
L-53YD-12V	GaAsP/GaP	590	yellow diffused	*5	*32	60°	
L-53SGD-5V	GaP	565	green diffused	12,5	32	60°	
L-53SGD-12V	GaP	565	green diffused	*12,5	*32	60°	
L-53SRD-5V	GaAlAs	660	red diffused	100	500	60°	
L-53SRD-12V	GaAlAs	660	red diffused	*100	*500	60°	

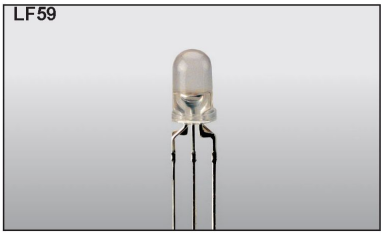




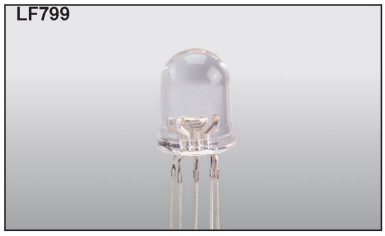
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

FULL COLOR LED LAMPS

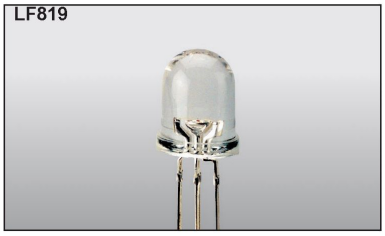
LF59



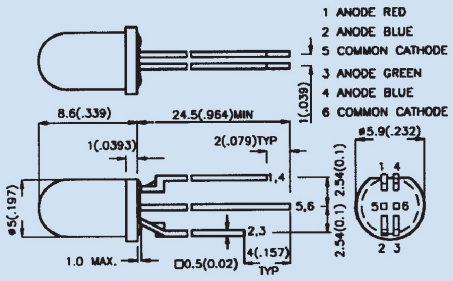
LF799

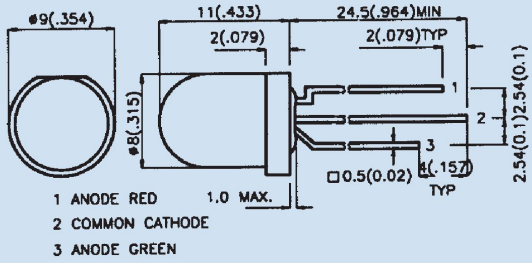


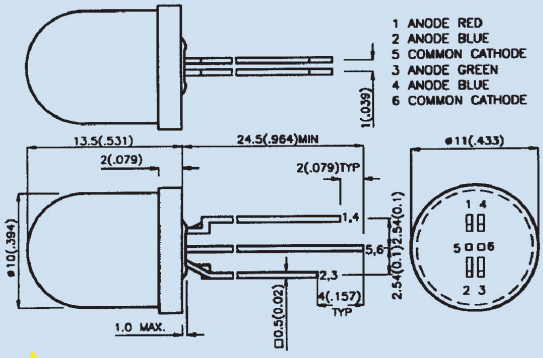
LF819



Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
	GaAsP/GaP	625		90	200		T-1 3/4 (5 mm) Round
	GaN	430		12,5	40		
LF59EMBGMBC			water clear			15°	
	GaP	565		50	150		
	GaN	430		12,5	40		
	GaAsP/GaP	625		20	90		
	GaN	430		3,2	12,5		
LF59EMBGMBW			white diffused			30°	
	GaP	565		10	70		
	GaN	430		3,2	12,5		
	GaAsP/GaP	625		80	200		8 mm Round
	GaN	430		20	60	30°	
LF799EMBGMBC			water clear				
	GaP	565		100	200		
	GaN	430		20	60		
	GaAsP/GaP	625		80	200		10 mm Round
	GaN	430		20	60		
LF819EMBGMBC			water clear			30°	
	GaP	565		100	200		
	GaN	430		20	60		







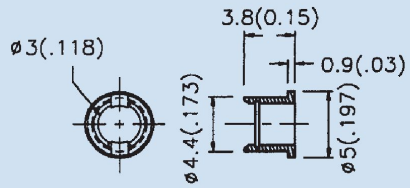
Caution! When operating both chips together, apply no more than 50% of the max. current to each chip. Refer to derating curve!

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

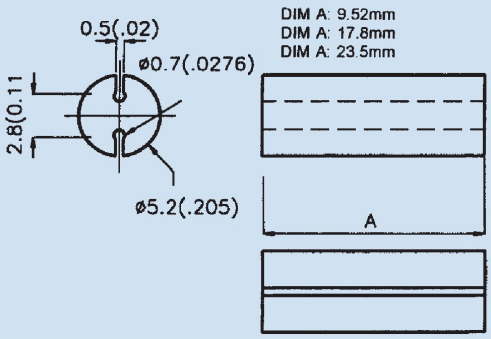
HOUSING & SPACER FOR LED LAMPS

Kingbright®

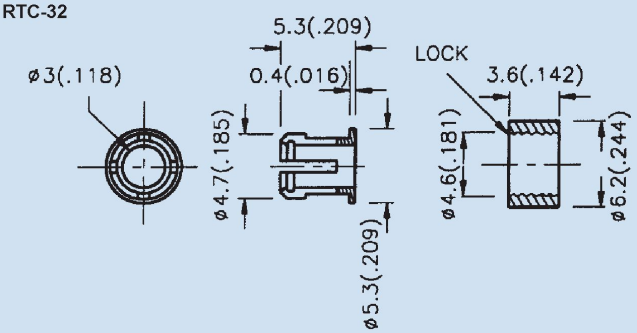
RTC-31



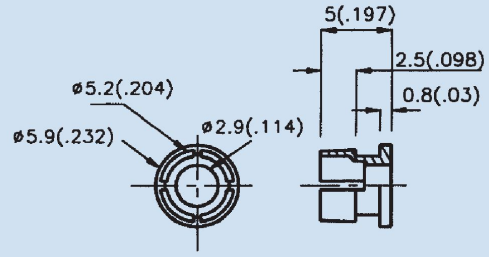
BR-A



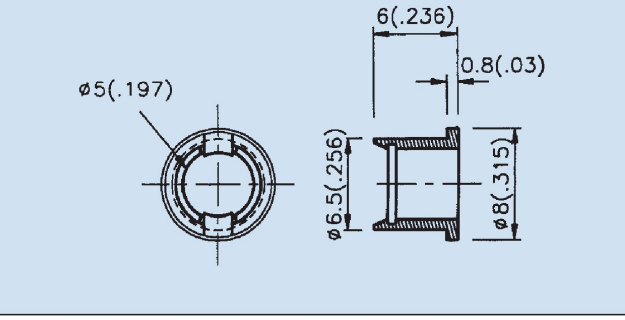
RTC-32



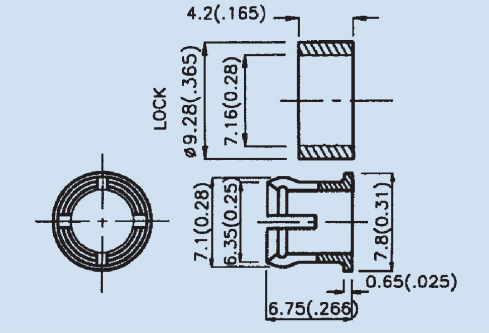
CB-30



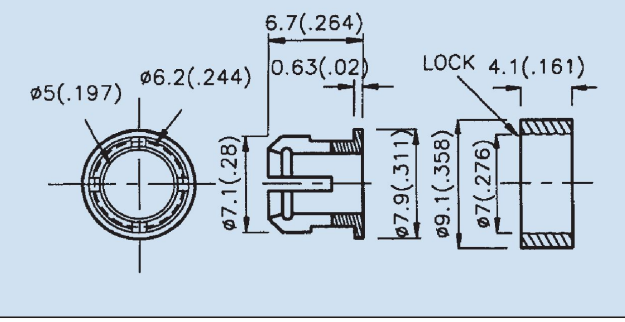
RTC-51



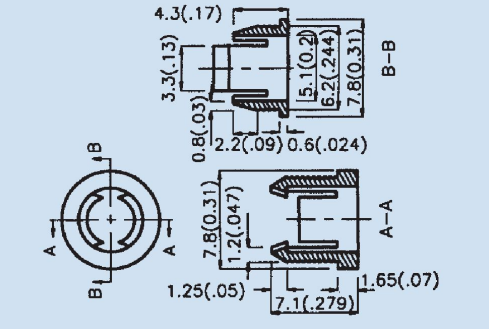
CB-50



RTC-52



CB-55



NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

HOUSING FOR LED LAMPS

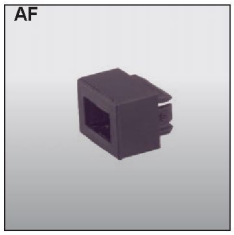
RTF-1090

RTF-8080

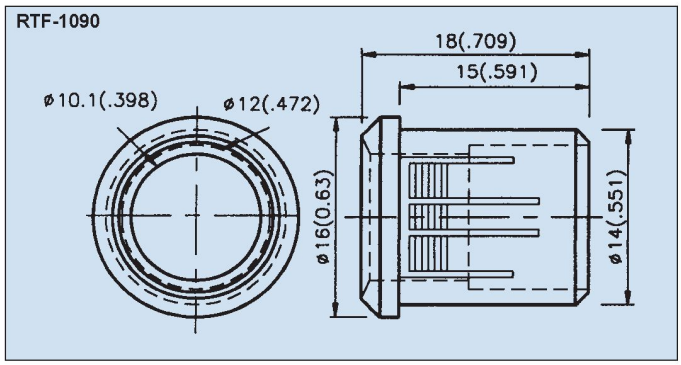
RTF-5010

RTF-5020

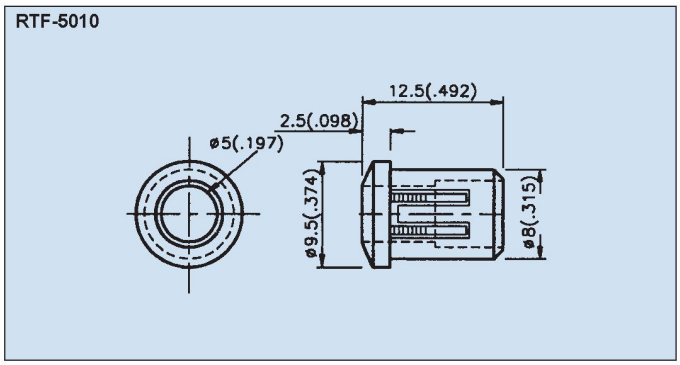
AF



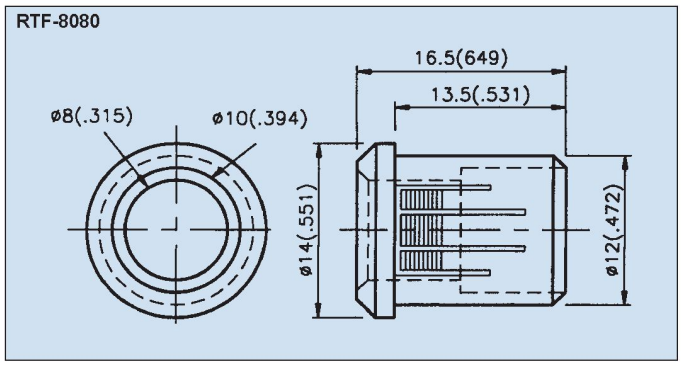
RTF-1090



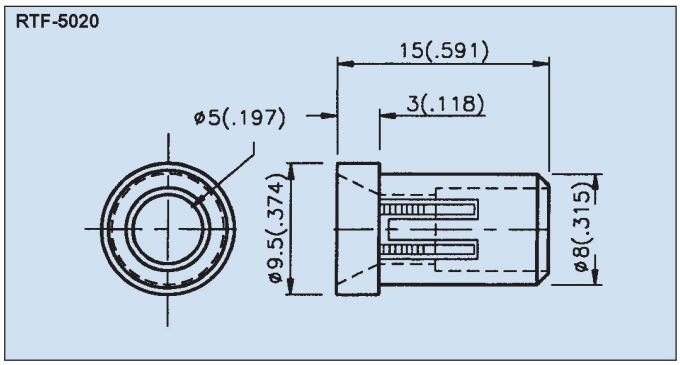
RTF-5010



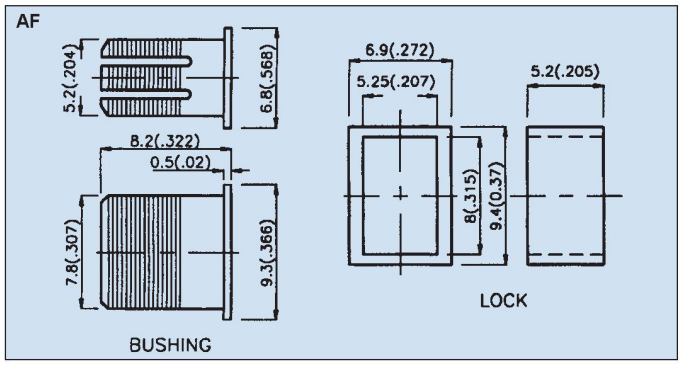
RTF-8080



RTF-5020



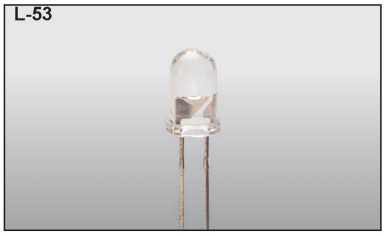
AF



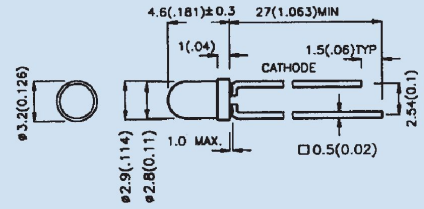
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

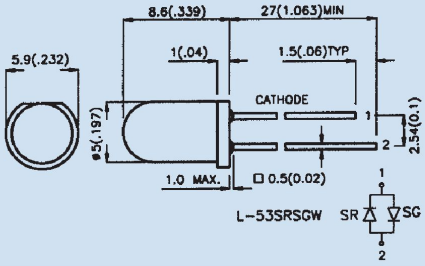
L-934

L-53



Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Ie (mW/sr) @20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-934F3C	GaAs	940	water clear	2,6	3,6	30°	T-1 (3 mm) Round
L-934F3BT	GaAs	940	blue-transparent	2,6	3,6	30°	
L-934SF4C	GaAlAs	880	water clear	3,2	7	30°	
L-934SF4BT	GaAlAs	880	blue-transparent	3,2	7	30°	
L-53F3C	GaAs	940	water clear	3,7	7,2	30°	T-1 3/4 (5 mm) Round
L-53F3BT	GaAs	940	blue-transparent	3,7	7,2	30°	
L-53SF4C	GaAlAs	880	water clear	5	10	30°	
L-53SF4BT	GaAlAs	880	blue-transparent	5	10	30°	





Operating characteristics (T=25°C)		L-934F3 L-53F3			L934SF4 L-53SF4			Unit	Condition
		min.	typ.	max.	min.	typ.	max.		
Forward voltage	V_F		1,2	1,5		1,4	1,7	V	I_F=20mA
Reverse current	I_R			10			10	μA	V_R=5V
Junction capacitance	C_O		90				90	pF	V=0 f=1MHz
Peak spectrical wave length	λ_P		940				880	nm	I_F=20mA
Spectral band width	$\Delta\lambda$		50				50	nm	I_F=20mA

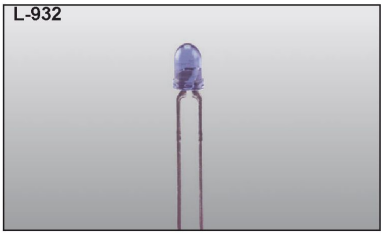
IP Condition: Pulse width < 10 μs, Duty < 1/100

Absolute maximum ratings (T=25°C)		Maximum Rating	Unit
Power dissipation	P_d	100	mW
Forward current	I_F	50	mA
Junction capacitance	I_P	1,2	pA
Reverse voltage	V_R	5	V
Operating temperature	T_{opr}	-40 - +85	°C
Storage temperature	T_{stg}	-40 - +85	°C

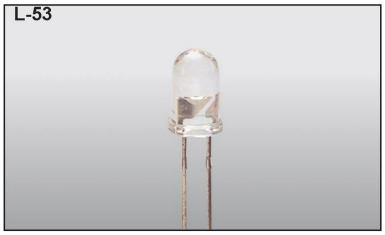
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

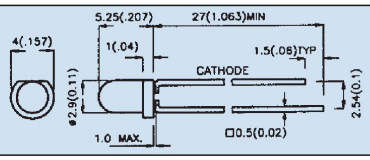
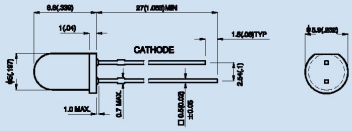
PHOTOTRANSISTORS

L-932



L-53



Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Angle of half sensivity	Dimensions Fig.-No.	Dimension
L-932P3C	Silicon	940	water clear	30°	7	
L-932P3BT	Silicon	940	blue-transparent	30°	7	
L-53P3C	Silicon	940	water clear	30°	11	
L-53P3BT	Silicon	940	blue-transparent	30°	11	

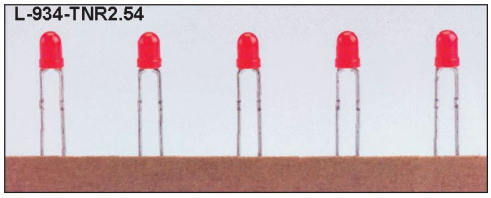
Electrical and radiant characteristics (*T=25°C*)

Symbol	Parameter	min	typ	max	Unit	Test Condition
$V_{BR\ CEO}$	Collector-to-Emitter Breakdown Voltage	30			V	I_C=100 µA I_B=0
$V_{BR\ ECO}$	Emitter-to-Collector Breakdown Voltage	5			V	I_E=100 µA I_B=0
V_{CE} (SAT)	Collector-to-Emitter Saturation Voltage			0,8	V	I_C=0,1 mA H=2,5 mW/cm^2
I_D	Dark Current			100	nA	V_{CE}=10 V H=0 mW/cm^2
T_R	Rise Time (10% to 90%)		3		µs	V_{CE}=5 V I_C=1 mA
T_F	Fall Time (10% to 90%)		3		µs	R_L=100 ohms
	On State Collector Current	1		2	mA	V_{CE}=5 V $I_{(ON)}$
		2		4	mA	
		4		8	mA	E_0=1 mW/cm^2
		8			mA	λ=940 nm

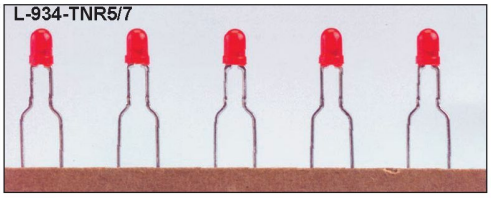
Absolute maximum ratings (*T=25°C*)	Unit
Collector-to-Emitter Breakdown Voltage $V_{BR\ CEO}$	30V
Emitter-to-Collector Breakdown Voltage	5V
Operating Teperature Range	-40°C +85°C
Lead Soldering Temperature (1,6 mm from body for 5 sec .)	260 °C
Power Dissipation at (or below) 25°C Free Air Temperature	100 mW
Storage Temperature Range	-40°C +85°C

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

L-934-TNR2.54



L-934-TNR5/7



L-934HD-TNR2.54
L-934HD-TNB2.54
L-934HD-TNR5/7
L-934HD-TNB5/7
L-934ID-TNR2.54
L-934ID-TNB2.54
L-934ID-TNR5/7
L-934ID-TNB5/7
L-934GD-TNR2.54
L-934GD-TNB2.54
L-934GD-TNR5/7
L-934GD-TNB5/7
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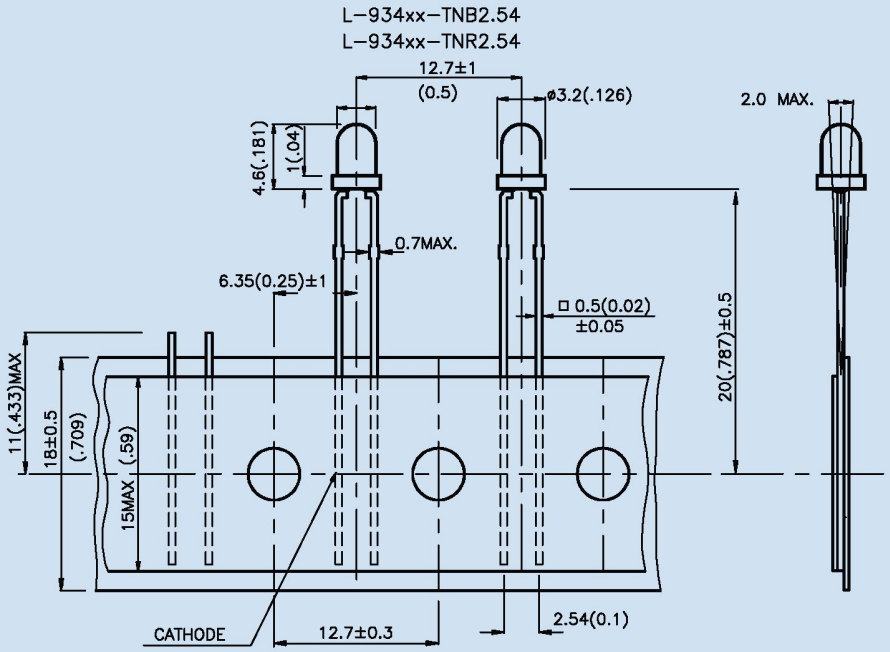
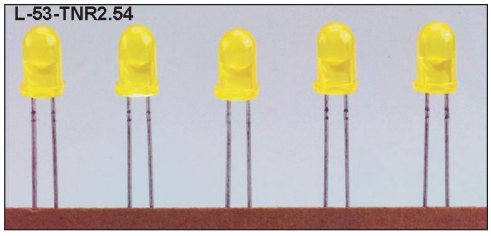
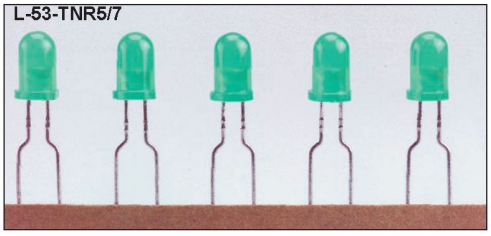
L-934YD-TNB2.54
L-934YD-TNR5/7
L-934YD-TNB5/7



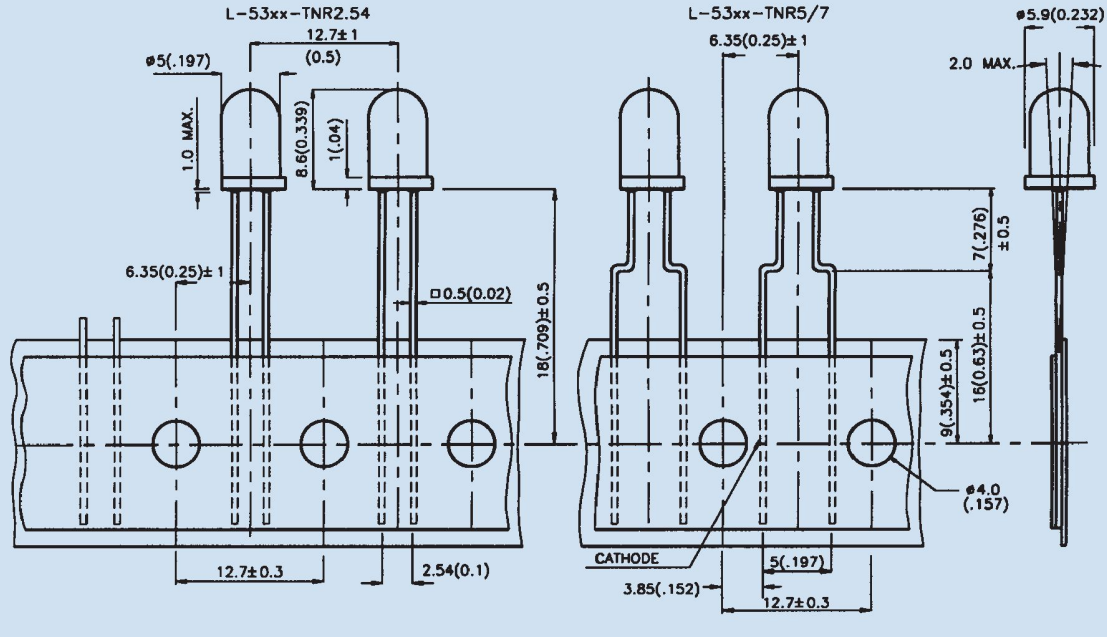
L-53-TNR2.54



L-53-TNR5/7



L-53HD-TNR2.54
L-53HD-TNB2.54
L-53HD-TNR5/7
L-53HD-TNB5/7
L-53ID-TNR2.54
L-53ID-TNB2.54
L-53ID-TNR5/7
L-53ID-TNB5/7
L-53GD-TNR2.54
L-53GD-TNB2.54
L-53GD-TNR5/7
L-53GD-TNB5/7
L-53YD-TNR2.54
L-53YD-TNB2.54
L-53YD-TNR5/7
L-53YD-TNB5/7



NOTES:
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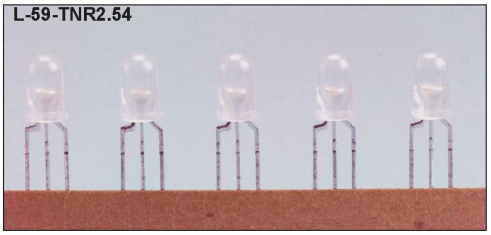
Kingbright® TAPED LED LAMPS

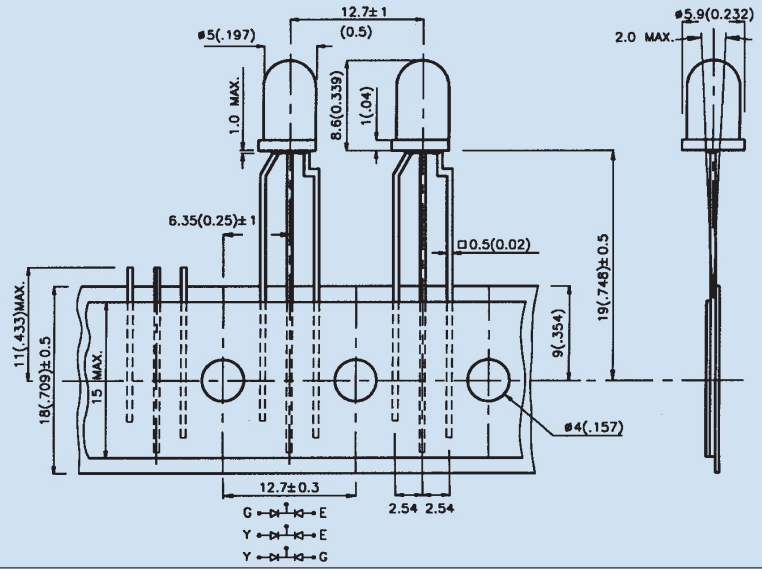
L-59-TNR2.54



L-59EGW-TNR2.54
L-59EGW-TNB2.54

L-59EYW-TNR2.54
L-59EYW-TNB2.54

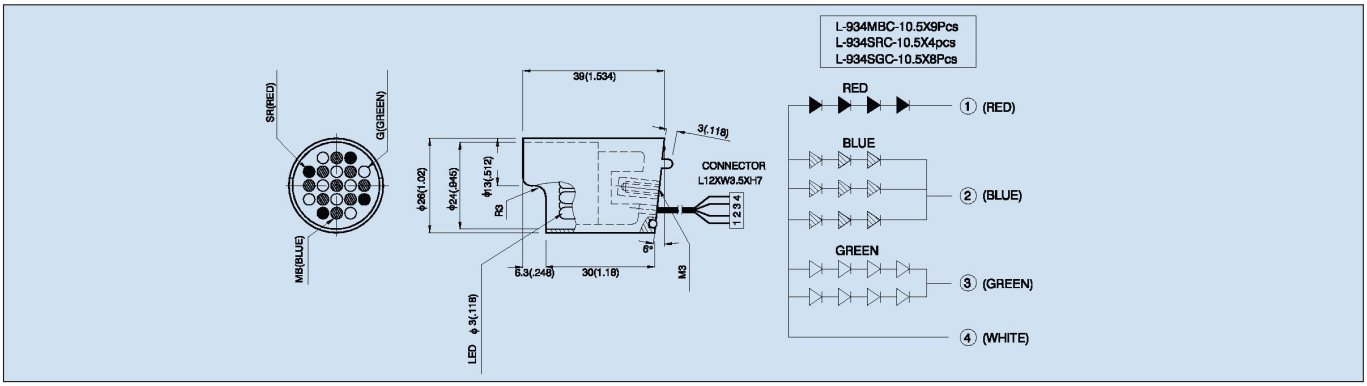
L-59GYW-TNR2.54
L-59GYW-TNB2.54



Kingbright® LED-CLUSTER

BL0104-21-72

Part No.	Emitting Color + Material	Wavelength (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	IF (mA)
				Min.	Typ.	2θ1/2	
	GaAlAs	660	water clear	800	2400	40°	20
BL0104-21-72	GaN	430	water clear	180	450	40°	60
	GaP	565	water clear	560	1600	40°	40



Caution! When operating both chips together, apply no more than 50% of the max. current to each chip. Refer to derating curve!

NOTES:
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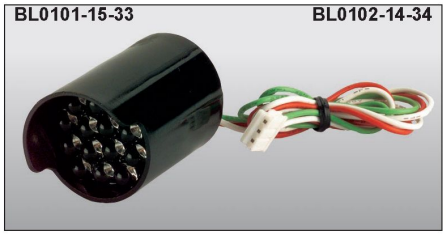
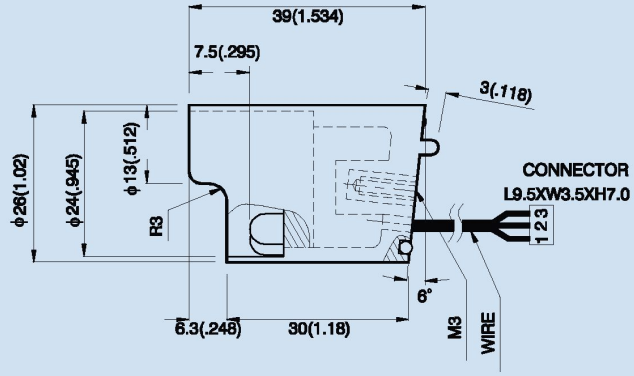
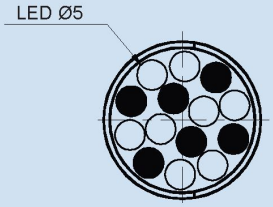
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

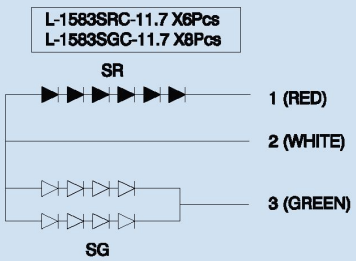


Part No.	Emitting Colour + Material	Wavelength (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	IF (mA)
				Min.	Typ.	2θ1/2	
BL0101-15-33	GaAlAs	660	water clear	1400	2500	40°	20
	GaP	565	water clear	800	1600	40°	20
BL0102-14-34	GaAlAs	660	water clear	1600	4200	40°	20
	GaP	565	water clear	800	2400	40°	20

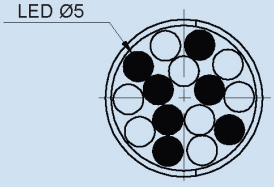


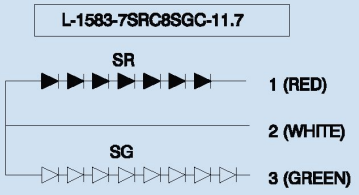
BL0102-14-34





BL0101-15-33





NOTES:
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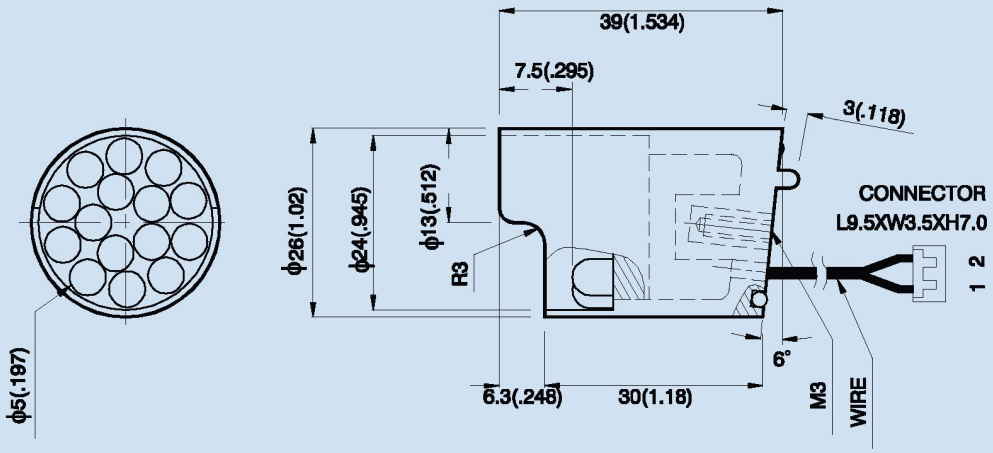
LED CLUSTER

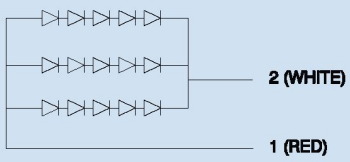
BL0106-15-39

Part No.	Emitting Colour + Material	Wavelength (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	IF (mA)
				Min.	Typ.	2 θ1/2	
BL0106-15-39	GaAlAs	660	water clear	4000	6000	40°	60
BL0106-15-47	GaP	565	water clear	800	2000	40°	60
BL0106-15-48	GaAsP/GaP	590	water clear	800	2000	40°	60



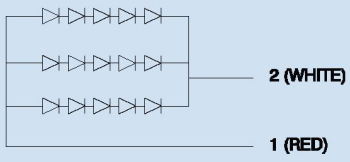
BL0106-15-39

L-1583SRC-11.7 X15Pcs



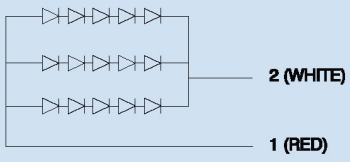
BL0106-15-47

L-1583SGC-11.7 X15Pcs



BL0106-15-48

L-1583YC-11.7 X15Pcs



NOTES:
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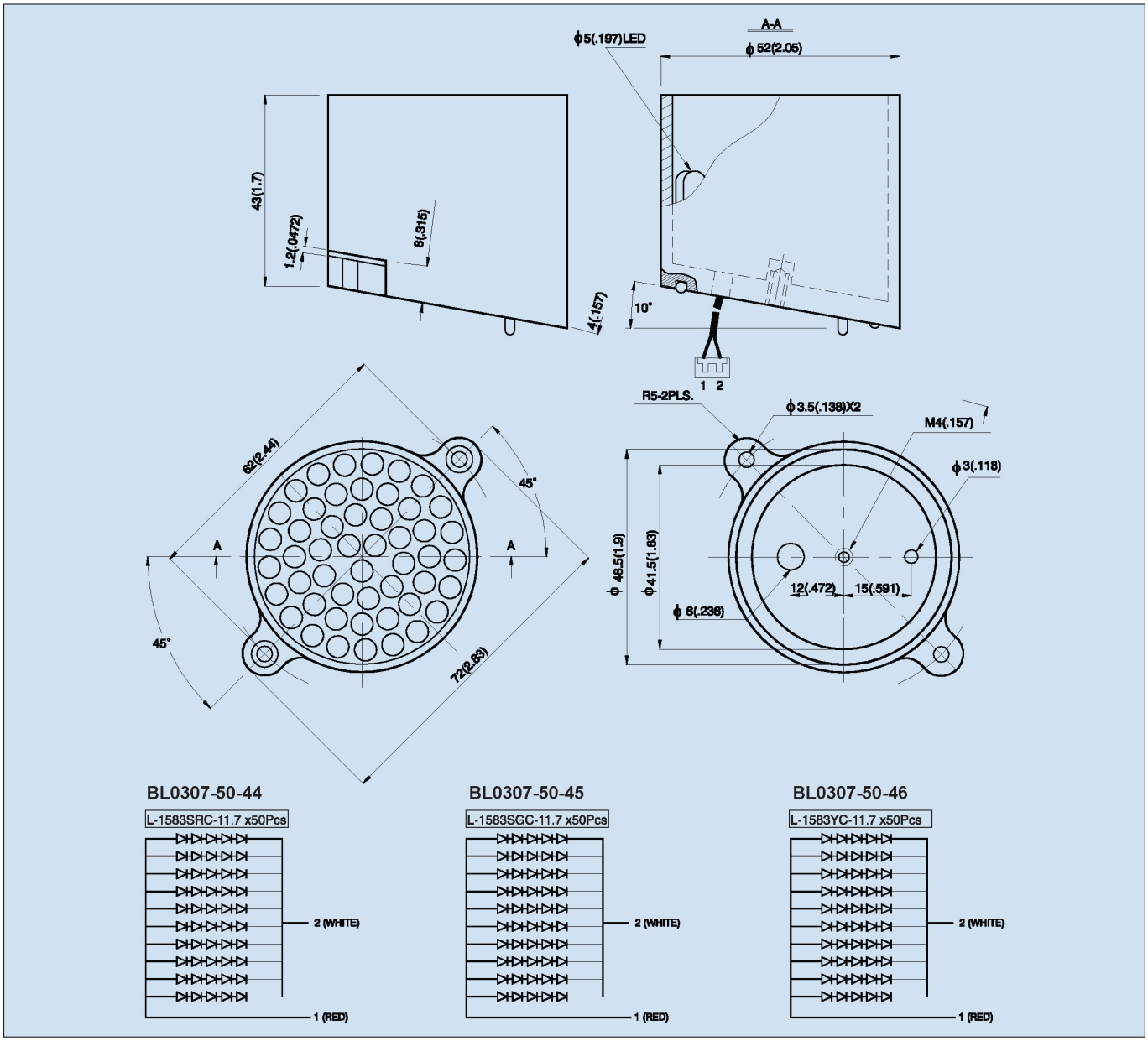
BL0307-50

Part No.	Emitting Colour + Material	Wavelength (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	IF (mA)
				Min.	Typ.	2θ1/2	
BL0307-50-44	GaAlAs	660	water clear	16000	23000	40°	200
BL0307-50-45	GaAsP/GaP	590	water clear	10000	15000	40°	250
BL0307-50-46	GaP	565	water clear	10000	15000	40°	250



NOTES:
1. All dimensions are in millimeters (inches)
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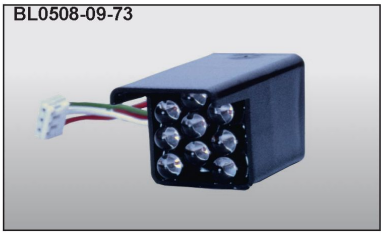
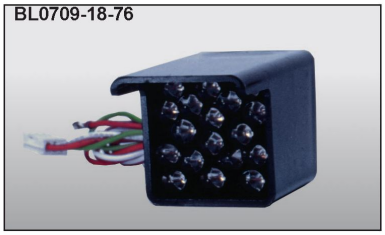
LED-CLUSTER

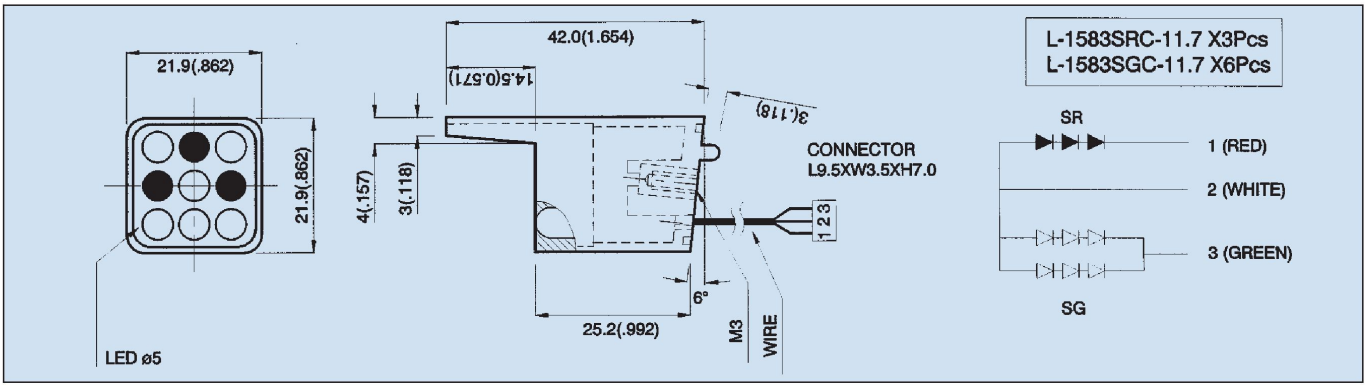
BL0508-09-73



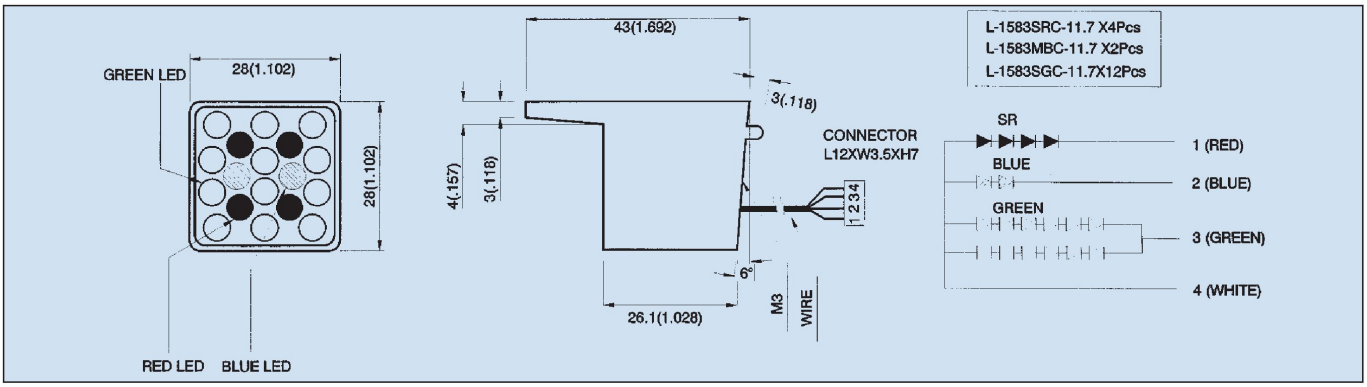
BL0709-18-76



Part No.	Emitting Colour + Material	Wavelength (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	IF (mA)
				Min.	Typ.	2θ1/2	
BL0508-09-73	GaAlAs	660	water clear	450	1800	40°	20
	GaP	565	water clear	420	1200	40°	40



BL0709-18-76	GaAlAs	660	water clear	800	2400	40°	20
	GaN	430	water clear	25	100	40°	620
	GaP	565	water clear	720	1800	40°	40



NOTES:
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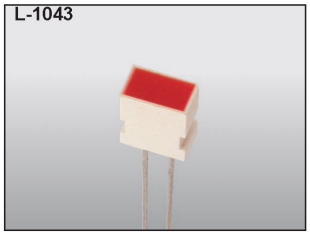
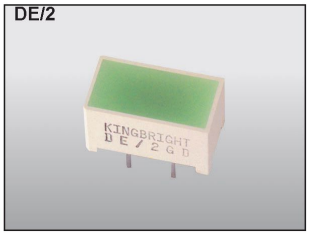
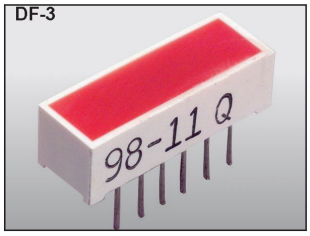
L-1043



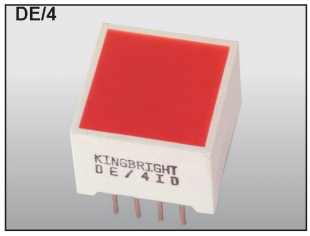
DE/2



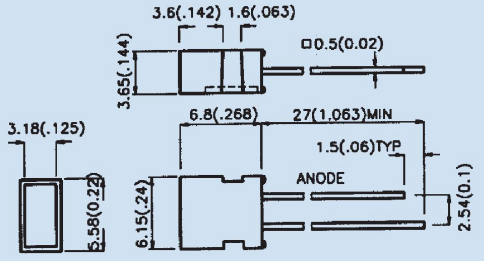
DF-3

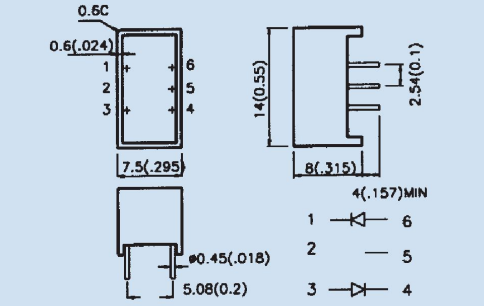


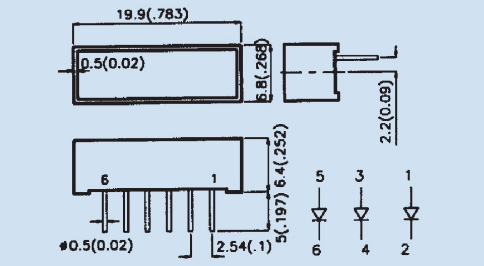
DE/4

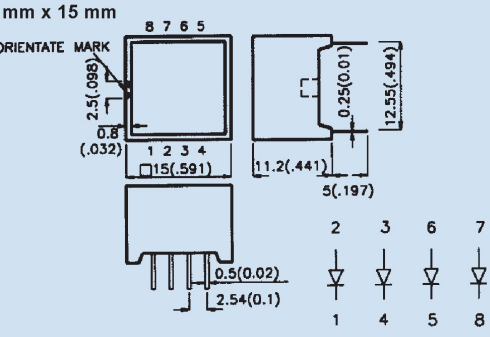


Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-1043ID	GaAsP/GaP	625	red diffused	5	20	100°	3.65 mm x 6.15 mm
L-1043GD	GaP	565	green diffused	2	8	100°	
L-1043YD	GaAsP/GaP	590	yellow diffused	2	8	100°	
L-1043SRD	GaAlAs	660	red diffused	*32	*100	100°	
L-1043SGD	GaP	565	green diffused	*5	*20	100°	
DE/2ID	GaAsP/GaP	625	red diffused	3	18	120°	7.5 mm x 14 mm
DE/2GD	GaP	565	green diffused	3	18	120°	
DE/2YD	GaAsP/GaP	590	yellow diffused	3	18	120°	
DE/2SRD	GaAlAs	660	red diffused	*40	*100	120°	
DE/2SGD	GaP	565	green diffused	*21	*31	120°	
DF-3ID	GaAsP/GaP	625	red diffused	3,5	15	120°	6.8 mm x 19.9 mm
DF-3GD	GaP	565	green diffused	3,5	15	120°	
DF-3YD	GaAsP/GaP	590	yellow diffused	3,5	15	120°	
DF-3SRD	GaAlAs	660	red diffused	*40	*100	120°	
DF-3SGD	GaP	565	green diffused	*21	*31	120°	
DE/4ID	GaAsP/GaP	625	red diffused	4,5	22	120°	15 mm x 15 mm
DE/4GD	GaP	565	green diffused	3	15	120°	
DE/4YD	GaAsP/GaP	590	yellow diffused	3,5	22	120°	
DE/4SGD	GaP	565	green diffused	*30	*55	120°	
DE/4SRD	GaAlAs	660	red diffused	*70	*110	120°	









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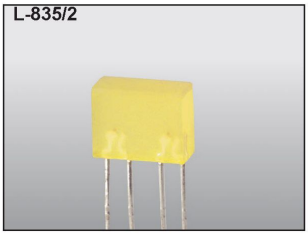
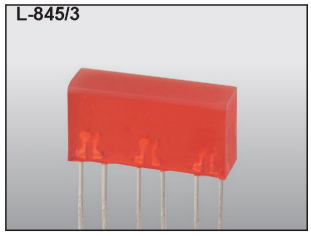
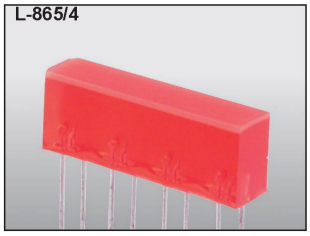
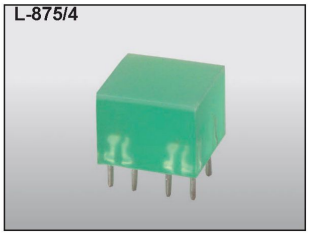
LIGHT BARS

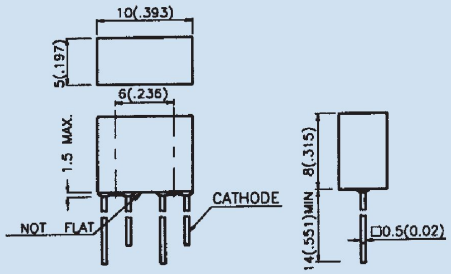


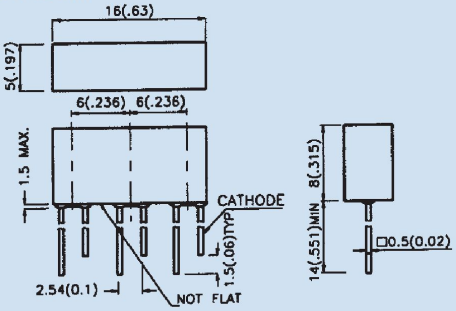


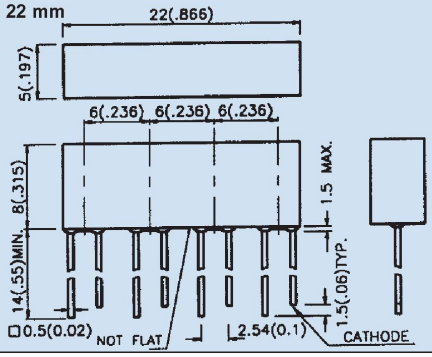


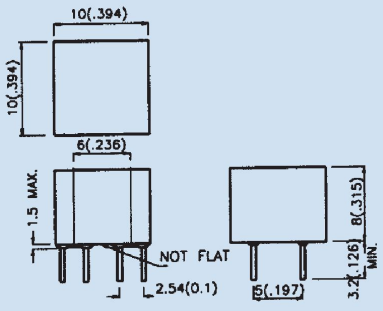


Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-835/2IDT	GaAsP/GaP	625	red diffused	5	20	120°	5 mm x 10 mm
L-835/2GDT	GaP	565	green diffused	5	20	120°	
L-835/2YDT	GaAsP/GaP	590	yellow diffused	5	20	120°	
L-835/2SRDT	GaAlAs	660	red diffused	*20	*100	120°	
L-845/3IDT	GaAsP/GaP	625	red diffused	5	20	120°	5 mm x 16 mm
L-845/3GDT	GaP	565	green diffused	5	20	120°	
L-845/3YDT	GaAsP/GaP	590	yellow diffused	5	20	120°	
L-845/3SRDT	GaAlAs	660	red diffused	*20	*100	120°	
L-865/4IDT	GaAsP/GaP	625	red diffused	5	20	120°	5 mm x 22 mm
L-865/4GDT	GaP	565	green diffused	5	20	120°	
L-865/4YDT	GaAsP/GaP	590	yellow diffused	5	20	120°	
L-865/4SRDT	GaAlAs	660	red diffused	*20	*100	120°	
L-875/4IDT	GaAsP/GaP	625	red diffused	5	20	120°	10 mm x 10 mm
L-875/4GDT	GaP	565	green diffused	5	20	120°	
L-875/4YDT	GaAsP/GaP	590	yellow diffused	5	20	120°	
L-875/4SRDT	GaAlAs	660	red diffused	*20	*100	120°	









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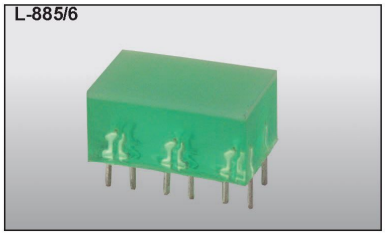
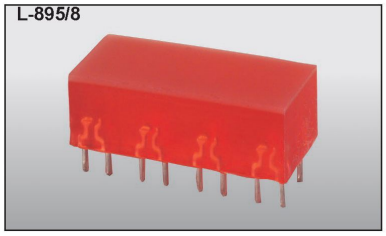
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

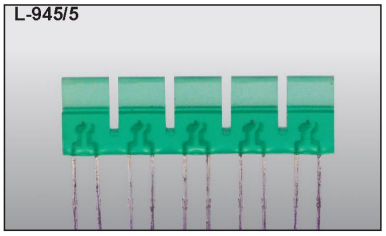
L-885/6

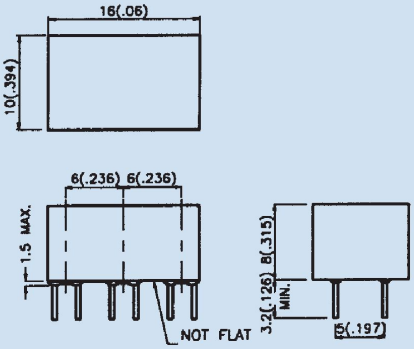
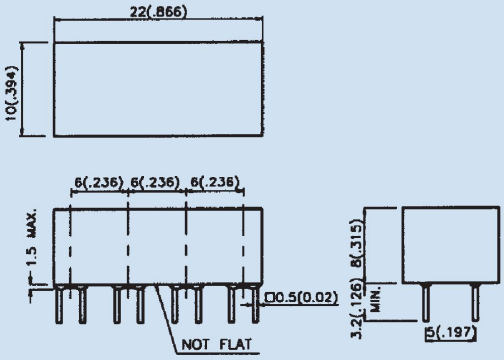
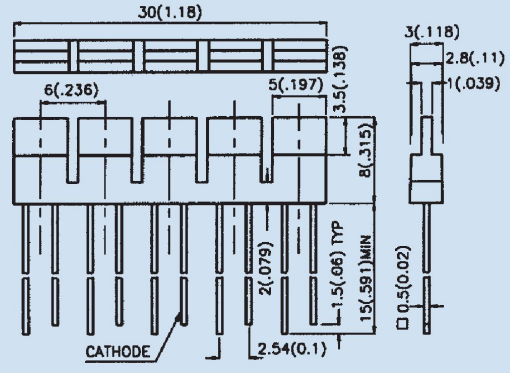


L-895/8



L-945/5



Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @10mA *@20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
L-885/6IDT	GaAsP/GaP	625	red diffused	5	20	120°	10 mm x 16 mm 
L-885/6GDT	GaP	565	green diffused	5	20	120°	
L-885/6YDT	GaAsP/GaP	590	yellow diffused	5	20	120°	
L-885/6SRDT	GaAlAs	660	red diffused	*20	*100	120°	
L-895/8IDT	GaAsP/GaP	625	red diffused	5	20	120°	10 mm x 22 mm 
L-895/8GDT	GaP	565	green diffused	5	20	120°	
L-895/8YDT	GaAsP/GaP	590	yellow diffused	5	20	120°	
L-895/8SRDT	GaAlAs	660	red diffused	*20	*100	120°	
L-945/5HD	GaP	700	red diffused	0,5	2	110°	1 mm x 5 mm 5 Elements 
L-945/5GD	GaP	565	green diffused	0,8	3,2	110°	
L-945/5YD	GaAsP/GaP	590	yellow diffused	0,8	3,2	110°	

NOTES:
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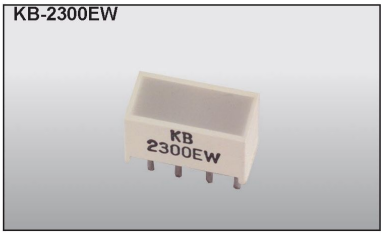
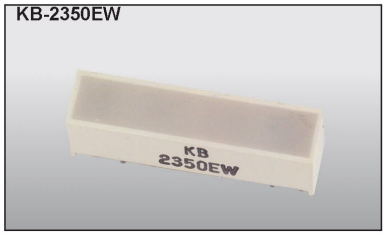
LIGHT BARS

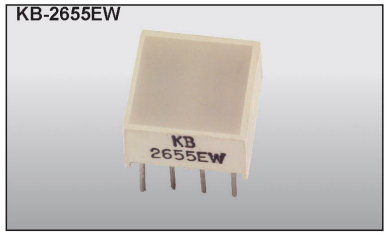
KB-2300EW



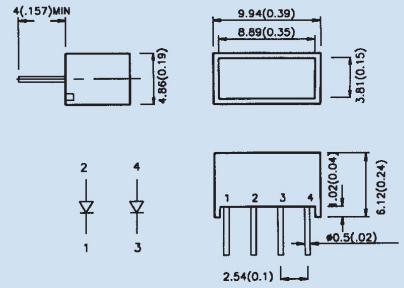
KB-2350EW

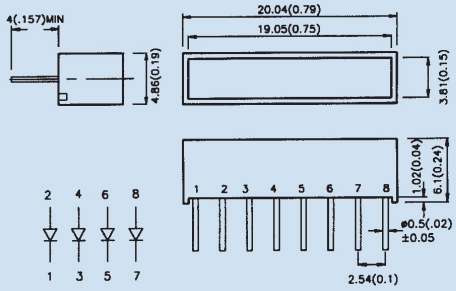


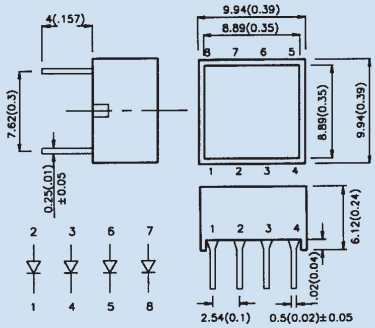
KB-2655EW



Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
KB-2300ID	GaAsP/GaP	625	red diffused	10	25	120°	8.89 mm x 3.81 mm Size of Light Emitting Areas
KB-2500SGD	GaP	565	green diffused	10	25	120°	
KB-2400YD	GaAsP/GaP	590	yellow diffused	8	18	120°	
KB-A100SRD	GaAlAs	660	red diffused	40	75	120°	
KB-2300EW	GaAsP/GaP	625	white diffused	10	25	120°	
KB-2500SGW	GaP	565	white diffused	10	25	120°	
KB-2400YW	GaAsP/GaP	590	white diffused	8	18	120°	
KB-A100SRW	GaAlAs	660	white diffused	40	75	120°	
KB-2350ID	GaAsP/GaP	625	red diffused	20	50	120°	19.05 mm x 3.81 mm Size of Light Emitting Areas
KB-2550SGD	GaP	565	green diffused	20	50	120°	
KB-2450YD	GaAsP/GaP	590	yellow diffused	15	38	120°	
KB-B100SRD	GaAlAs	660	red diffused	30	80	120°	
KB-2350EW	GaAsP/GaP	625	white diffused	20	50	120°	
KB-2550SGW	GaP	565	white diffused	20	50	120°	
KB-2450YW	GaAsP/GaP	590	white diffused	15	38	120°	
KB-B100SRW	GaAlAs	660	white diffused	30	80	120°	
KB-2655ID	GaAsP/GaP	625	red diffused	20	45	120°	8.89 mm x 8.89 mm Size of Light Emitting Areas
KB-2855SGD	GaP	565	green diffused	20	50	120°	
KB-2755YD	GaAsP/GaP	590	yellow diffused	15	35	120°	
KB-C100SRD	GaAlAs	660	red diffused	30	80	120°	
KB-2655EW	GaAsP/GaP	625	white diffused	20	45	120°	
KB-2855SGW	GaP	565	white diffused	20	50	120°	
KB-2755YW	GaAsP/GaP	590	white diffused	15	35	120°	
KB-C100SRW	GaAlAs	660	white diffused	30	80	120°	







NOTES:
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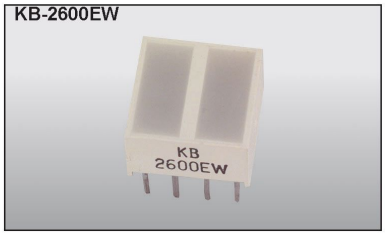
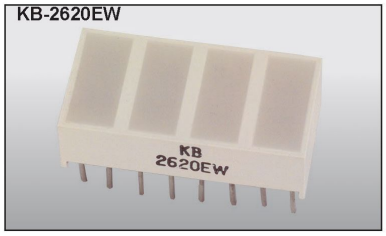
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

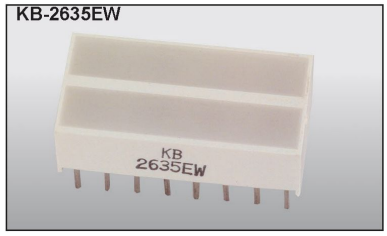
KB-2600EW



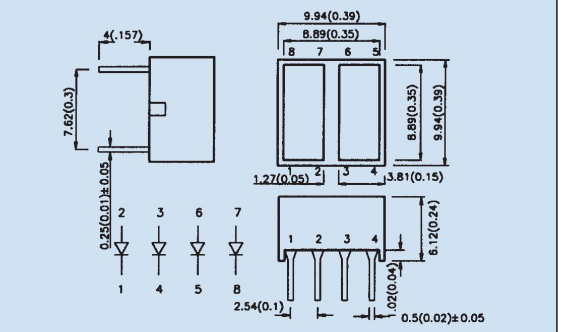
KB-2620EW

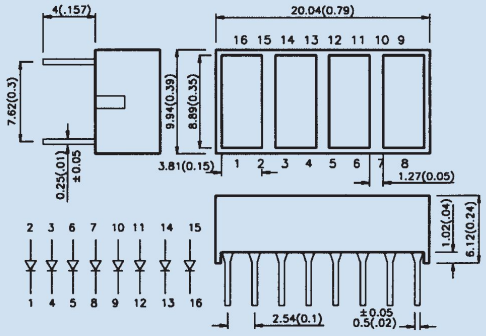


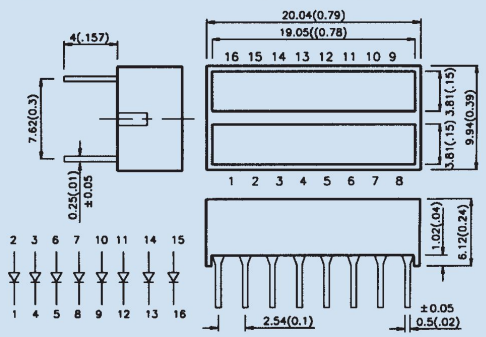
KB-2635EW



Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
KB-2600ID	GaAsP/GaP	625	red diffused	10	25	120°	8.89 mm x 3.81 mm Size of Light Emitting Areas
KB-2800SGD	GaP	565	green diffused	10	25	120°	
KB-2700YD	GaAsP/GaP	590	yellow diffused	8	18	120°	
KB-D100SRD	GaAlAs	660	red diffused	45	75	120°	
KB-2600EW	GaAsP/GaP	625	white diffused	10	25	120°	
KB-2800SGW	GaP	565	white diffused	10	25	120°	
KB-2700YW	GaAsP/GaP	590	white diffused	8	18	120°	
KB-D100SRW	GaAlAs	660	white diffused	40	75	120°	
KB-2620ID	GaAsP/GaP	625	red diffused	10	25	120°	8.89 mm x 3.81 mm Size of Light Emitting Areas
KB-2820SGD	GaP	565	green diffused	10	25	120°	
KB-2720YD	GaAsP/GaP	590	yellow diffused	8	18	120°	
KB-E100SRD	GaAlAs	660	red diffused	15	40	120°	
KB-2620EW	GaAsP/GaP	625	white diffused	10	25	120°	
KB-2820SGW	GaP	565	white diffused	10	25	120°	
KB-2720YW	GaAsP/GaP	590	white diffused	8	18	120°	
KB-E100SRW	GaAlAs	660	white diffused	15	40	120°	
KB-2635ID	GaAsP/GaP	625	red diffused	20	50	120°	3.81 mm x 19.05 mm Size of Light Emitting Areas
KB-2835SGD	GaP	565	green diffused	20	50	120°	
KB-2735YD	GaAsP/GaP	590	yellow diffused	15	38	120°	
KB-F100SRD	GaAlAs	660	red diffused	30	80	120°	
KB-2635EW	GaAsP/GaP	625	white diffused	20	50	120°	
KB-2835SGW	GaP	565	white diffused	20	50	120°	
KB-2735YW	GaAsP/GaP	590	white diffused	15	38	120°	
KB-F100SRW	GaAlAs	660	white diffused	30	80	120°	







NOTES:
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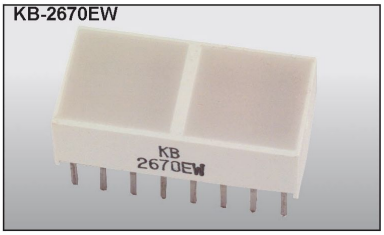
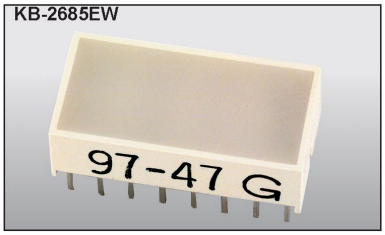
LIGHT BARS

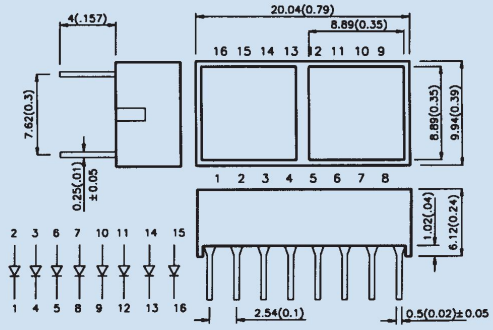
KB-2670EW

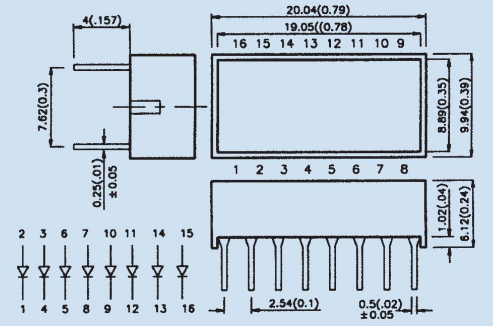


KB-2685EW



Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	Dimension
				Min.	Typ.	2θ1/2	
KB-2670ID	GaAsP/GaP	625	red diffused	20	45	120°	8.89 mm x 8.89 mm Size of Light Emitting Areas
KB-2870SGD	GaP	565	green diffused	20	50	120°	
KB-2770YD	GaAsP/GaP	590	yellow diffused	15	35	120°	
KB-G100SRD	GaAlAs	660	red diffused	30	80	120°	
KB-2670EW	GaAsP/GaP	625	white diffused	20	45	120°	
KB-2870SGW	GaP	565	white diffused	20	50	120°	
KB-2770YW	GaAsP/GaP	590	white diffused	15	35	120°	
KB-G100SRW	GaAlAs	660	white diffused	30	80	120°	
KB-2685ID	GaAsP/GaP	625	red diffused	25	80	120°	8.89 mm x 19.05 mm Size of Light Emitting Areas
KB-2885SGD	GaP	565	red transparent	30	100	120°	
KB-2785YD	GaAsP/GaP	590	yellow diffused	25	70	120°	
KB-H100SRD	GaAlAs	660	red diffused	40	150	120°	
KB-2685EW	GaAsP/GaP	625	white diffused	25	80	120°	
KB-2885SGW	GaP	565	white diffused	30	100	120°	
KB-2785YW	GaAsP/GaP	590	white diffused	25	70	120°	
KB-H100SRW	GaAlAs	660	white diffused	40	150	120°	





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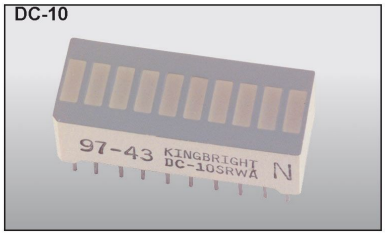
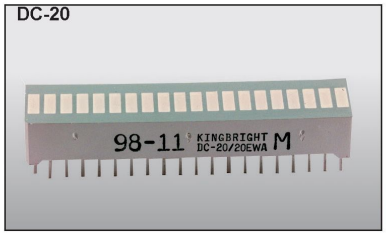
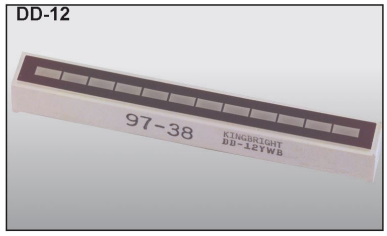
DC-10

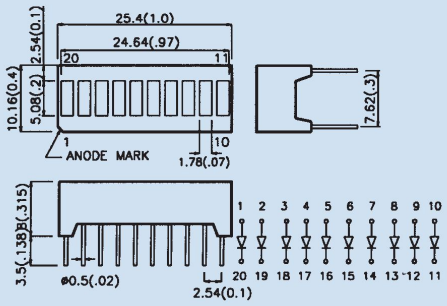
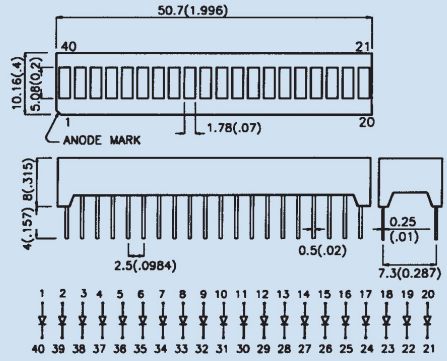
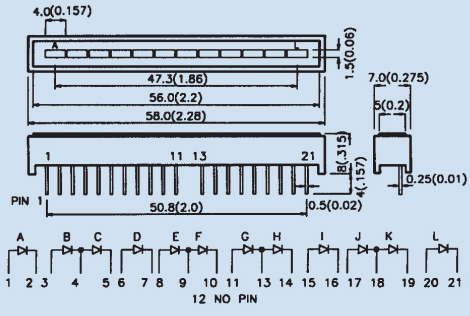


DC-20



DD-12



Part No.	Emitting Colour + Material	Wave-length (nm)	Lens Type	Iv (µcd) @10mA		Descript-ion	Dimension
				Min.	Typ.		
DC-10EWA	GaAsP/GaP	625	hi. eff. red	2200	5600	10 segments bargraph-display	
DC-10GWA	GaP	565	green	2200	5600	10 segments bargraph-display	
DC-10YWA	GaAsP/GaP	590	yellow	2200	5600	10 segments bargraph-display	
DC-10SRWA	GaAlAs	660	red	5600	31000	10 segments bargraph-display	
DC-7G3HWA	GaP	565	green	2200	5600	10 segments bargraph-display 7x Green 3x Red	
	GaP	700	bright red	900	2200		
DC-20/20EWA	GaAsP/GaP	625	hi. eff. red	2200	5600	20 segments bargraph-display	
DC-20/20GWA	GaP	565	green	2200	5600	20 segments bargraph-display	
DC-20/20YWA	GaAsP/GaP	590	yellow	2200	5600	20 segments bargraph-display	
DC-20/20SRWA	GaAlAs	660	super bright	5600	31000	20 segments bargraph-display	
DD-12HWB	GaP	700	bright red	230	470	12 segments bargraph-display	
DD-12GWB	GaP	565	green	1000	2000	12 segments bargraph-display	
DD-12YWB	GaAsP/GaP	590	yellow	1300	2700	12 segments bargraph-display	

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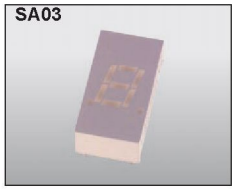
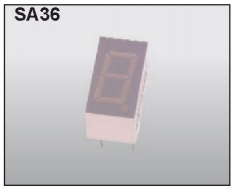
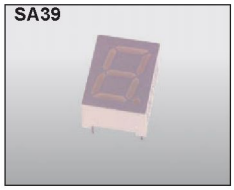
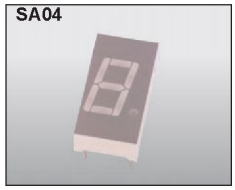
Kingbright® SINGLE DIGIT NUMERIC DISPLAYS









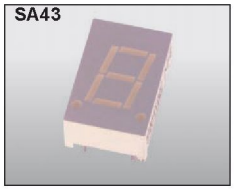
Part No.		Package Description	Emitting Colour + Material	Wave-length (nm)	Iv (µcd)@10mA		Package Dimension
Common Anode	Common Cathode				Min.	Max.	
SA03-11HWA	SC03-12HWA	0,3 inch (7 mm) grey face white segment	GaP	700	360	1400	1
SA03-11EWA	SC03-12EWA		GaAsP/GaP	625	2200	9000	
SA03-11GWA	SC03-12GWA		GaP	565	1400	5600	
SA03-11YWA	SC03-12YWA		GaAsP/GaP	590	1400	5600	
SA03-11SRWA	SC03-12SRWA		GaAlAs	660	5600	14000	
SA32-11HWA	SC32-11HWA	0,32 inch (8 mm) grey face white segment	GaP	700	240	900	2
SA32-11EWA	SC32-11EWA		GaAsP/GaP	625	900	3600	
SA32-11GWA	SC32-11GWA		GaAsP/GaP	565	900	3600	
SA32-11YWA	SC32-11YWA		GaP	590	900	3600	
SA32-11SRWA	SC32-11SRWA		GaAlAs	660	5600	14000	
SA36-11HWA	SC36-11HWA	0,36 inch (9 mm) grey face white segment	GaP	700	240	900	3
SA36-11EWA	SC36-11EWA		GaAsP/GaP	625	900	3600	
SA36-11GWA	SC36-11GWA		GaP	565	900	3600	
SA36-11YWA	SC36-11YWA		GaAsP/GaP	590	900	3600	
SA36-11SRWA	SC36-11SRWA		GaAlAs	660	2200	9000	
SA39-11HWA SA39-12HWA	SC39-11HWA SC39-12HWA	0,39 inch (9,9 mm) grey face white segment	GaP	700	560	2200	4
SA39-11EWA SA39-12EWA	SC39-11EWA SC39-12EWA		GaAsP/GaP	625	2200	9000	
SA39-11GWA SA39-12GWA	SC39-11GWA SC39-12GWA		GaP	565	1400	5600	
SA39-11YWA SA39-12YWA	SC39-11YWA SC39-12YWA		GaAsP/GaP	590	1400	5600	
SA39-11SRWA SA39-12SRWA	SC39-11SRWA SC39-12SRWA		GaAlAs	660	5600	14000	
SA04-11HWA SA04-12HWA	SC04-11HWA SC04-12HWA	0,4 inch (10,16 mm) grey face white segment	GaP	700	560	2200	5
SA04-11EWA SA04-12EWA	SC04-11EWA SC04-12EWA		GaAsP/GaP	625	2200	9000	
SA04-11GWA SA04-12GWA	SC04-11GWA SC04-12GWA		GaP	565	1400	5600	
SA04-11YWA SA04-12YWA	SC04-11YWA SC04-12YWA		GaAsP/GaP	590	1400	5600	
SA04-11SRWA SA04-12SRWA	SC04-11SRWA SC04-12SRWA		GaAlAs	660	5600	14000	

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

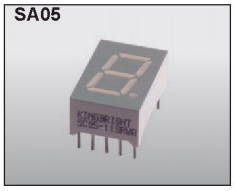
SINGLE DIGIT NUMERIC DISPLAYS

Kingbright®

SA43

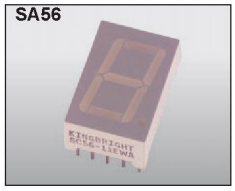


SA05



SA52

SA56



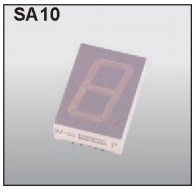
Part No.		Package Description	Emitting Colour + Material	Wave-length (nm)	Iv (µcd)@10mA		Package Dimension
Common Anode	Common Cathode				Min.	Max.	
SA43-11HWA	SC43-11HWA	0,43 inch (10,92 mm) grey face white segment	GaP	700	360	900	6
SA43-13HWA	SC43-13HWA						
SA43-11EWA	SC43-11EWA		GaAsP/GaP	625	2200	5600	
SA43-13EWA	SC43-13EWA						
SA43-11GWA	SC43-11GWA		GaP	565	1400	3600	
SA43-13GWA	SC43-13GWA						
SA43-11YWA	SC43-11YWA		GaAsP/GaP	590	1400	3600	
SA43-13YWA	SC43-13YWA						
SA43-11SRWA	SC43-11SRWA		GaAlAs	660	3600	21000	
SA43-13SRWA	SC43-13SRWA						
SA05-11HWA	SC05-11HWA	0,45 inch (12,7 mm) grey face white segment	GaP	700	900	2200	7
SA05-11EWA	SC05-11EWA		GaAsP/GaP	625	2200	5600	
SA05-11GWA	SC05-11GWA		GaP	565	2200	5600	
SA05-11YWA	SC05-11YWA		GaAsP/GaP	590	2200	5600	
SA05-11SRWA	SC05-11SRWA		GaAlAs	660	5600	21000	
SA52-11HWA	SC52-11HWA	0,52 inch (13,2 mm) grey face white segment	GaP	700	900	2200	8
SA52-11EWA	SC52-11EWA		GaAsP/GaP	625	2200	5600	
SA52-11GWA	SC52-11GWA		GaP	565	2200	5600	
SA52-11YWA	SC52-11YWA		GaAsP/GaP	590	2200	5600	
SA52-11SRWA	SC52-11SRWA		GaAlAs	660	5600	21000	
SA56-11HWA	SC56-11HWA	0,56 inch (14,2 mm) grey face white segment	GaP	700	560	1400	9
SA56-21HWA	SC56-21HWA						
SA56-11EWA	SC56-11EWA		GaAsP/GaP	625	2200	5600	
SA56-21EWA	SC56-21EWA						
SA56-11GWA	SC56-11GWA		GaP	565	5600	14000	
SA56-21GWA	SC56-21GWA						
SA56-11YWA	SC56-11YWA		GaAsP/GaP	590	2200	5600	
SA56-21YWA	SC56-21YWA						
SA56-11SRWA	SC56-11SRWA		GaAlAs	660	5600	21000	
SA56-21SRWA	SC56-21SRWA						

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

SINGLE DIGITAL NUMERIC DISPLAYS

SA08

SA10



SA15

SA18

Part No.		Package Description	Emitting Colour + Material	Wave-length (nm)	Iv (µcd)@10mA		Package Dimension
Common Anode	Common Cathode				Min.	Max.	
SA08-11HWA SA08-12HWA SA08-13HWA SA08-21HWA	SC08-11HWA SC08-12HWA SC08-13HWA SC08-21HWA	0,8 inch (20,32 mm) grey face white segment	GaP	700	360	1400	10
SA08-11EWA SA08-12EWA SA08-13EWA SA08-11EWA	SC08-12EWA SC08-13EWA SC08-21EWA SC08-21EWA		GaAsP/GaP	625	2200	9000	
SA08-11GWA SA08-12GWA SA08-13GWA SA08-21GWA	SC08-11GWA SC08-12GWA SC08-13GWA SC08-21GWA		GaP	565	3600	14000	
SA08-11YWA SA08-12YWA SA08-13YWA SA08-11YWA	SC08-12YWA SC08-13YWA SC08-21YWA SC08-21YWA		GaAsP/GaP	590	1400	3600	
SA08-11SRWA SA08-12SRWA SA08-13SRWA SA08-21SRWA	SC08-11SRWA SC08-12SRWA SC08-13SRWA SC08-21SRWA		GaAlAs	660	9000	21000	
SA10-11HWA SA10-21HWA	SC10-11HWA SC10-21HWA	1,0 inch (25,4 mm) grey face white segment	GaP	700	900	2200	11
SA10-11EWA SA10-21EWA	SC10-11EWA SC10-21EWA		GaAsP/GaP	625	5600	14000	
SA10-11GWA SA10-21GWA	SC10-11GWA SC10-21GWA		GaP	565	9000	22000	
SA10-11YWA SA10-21YWA	SC10-11YWA SC10-21YWA		GaAsP/GaP	590	3600	9000	
SA10-11SRWA SA10-21SRWA	SC10-11SRWA SC10-21SRWA		GaAlAs	660	14000	31000	
SA15-11HWA	SC15-11HWA	1,5 inch (38 mm) grey face white segment	GaP	700	900	2200	12
SA15-11EWA	SC15-11EWA		GaAsP/GaP	625	3600	21000	
SA15-11GWA	SC15-11GWA		GaP	565	3600	9000	
SA15-11YWA	SC15-11YWA		GaAsP/GaP	590	3600	9000	
SA15-11SRWA	SC15-11SRWA		GaAlAs	660	14000	31000	
SBA15-11EGWA	SBC15-11EGWA		GaAsP/GaP	625	3600	21000	
			GaP	565	3600	9000	
SA18-11HWA	SC18-11HWA	1,8 inch (45 mm) grey face white segment	GaP	700	900	2200	13
SA18-11EWA	SC18-11EWA		GaAsP/GaP	625	3600	21000	
SA18-11GWA	SC18-11GWA		GaP	565	3600	9000	
SA18-11YWA	SC18-11YWA		GaAsP/GaP	590	3600	9000	
SA18-11SRWA	SC18-11SRWA		GaAlAs	660	14000	31000	
SBA18-11EGWA	SBC18-11EGWA		GaAsP/GaP	625	3600	21000	
			GaP	565	3600	9000	

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

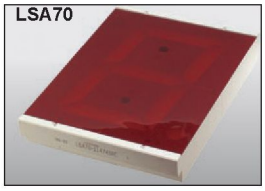
SINGLE DIGITAL NUMERIC DISPLAYS Kingbright®

SA23

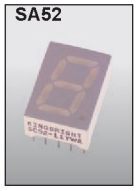
SA40

SA50

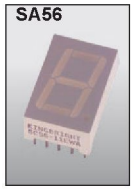
LSA70



SA52



SA56



Part No.		Package Description	Emitting Colour + Material	Wave-length (nm)	Iv (µcd)@10mA		Package Dimension
Common Anode	Common Cathode				Min.	Max.	
SA23-11EWA SA23-12EWA	SC23-11EWA SC23-12EWA	2,3 inch (56,9 mm) grey face white segment	GaAsP/GaP	625	5600	21000	14
SA23-11GWA SA23-12GWA	SC23-11GWA SC23-12GWA		GaP	565	3600	9000	
SA23-11YWA SA23-12YWA	SC23-11YWA SC23-12YWA		GaAsP/GaP	590	3600	9000	
SA23-11SRWA SA23-12SRWA	SC23-11SRWA SC23-12SRWA		GaAlAs	660	14000	31000	
SBA23-11EGWA	SBC23-11EGWA		GaAsP/GaP	625	5600	14000	
			GaP	565	3600	9000	
SA40-18EWA SA40-19EWA	SC40-18EWA SC40-19EWA	4,0 inch (100 mm) grey face white segment	GaAsP/GaP	625	3600	14000	15
SA40-18GWA SA40-19GWA	SC40-18GWA SC40-19GWA		GaP	565	3600	9000	
SA40-18YWA SA40-19YWA	SC40-18YWA SC40-19YWA		GaAsP/GaP	590	3600	9000	
SA40-18SRWA SA40-19SRWA	SC40-18SRWA SC40-19SRWA		GaAlAs	660	14000	31000	
SA50-11EWA	SC50-11EWA	5,0 inch (127 mm) grey face white segment	GaAsP/GaP	625	14000	21000	16
SA50-11SGWA	SC50-11SGWA		GaP	565	21000	31000	
SA50-11YWA	SC50-11YWA		GaAsP/GaP	590	21000	31000	
SA50-11SRWA	SC50-11SRWA		GaAlAs	660	31000	50000	

Part No.		Package Description	Emitting Colour + Material	Wave-length (nm)	Iv (mcd) IF=60mA/Segm.		Package Dimension
Common Anode	Common Cathode				Min.	Max.	
LSA70-11474EC	LSC70-11474EC	7,0 inch (181 mm) colored face water-clear segment	GaAsP/GaP	625	18	80	17
LSA70-11474SGC	LSC70-11474SGC		GaP	565	50	300	
LSA70-11474YC	LSC70-11474YC		GaAsP/GaP	590	15	100	
LSA70-11474SRC	LSC70-11474SRC		GaAlAs	660	100	400	

Kingbright® SINGLE DIGIT NUMERIC DISPLAYS, LOW CURRENT

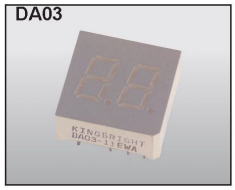
Part No.		Package Description	Emitting Colour + Material	Wave-length (nm)	Iv (µcd) @2mA		Package Dimension
Common Anode	Common Cathode				Min.	Max.	
SA52-11LEWA	SC52-11LEWA	0,52 inch (13,2 mm) grey face white segment	GaAsP/GaP	625	560	1400	8
SA52-11LGWA	SC52-11LGWA		GaP	565	560	2200	
SA52-11LYWA	SC52-11LYWA		GaAsP/GaP	590	360	900	
SA52-11LSRWA	SC52-11LSRWA		GaAlAs	660	3600	9000	
SA56-11LEWA	SC56-11LEWA	0,56 inch (14,2 mm) grey face white segment	GaAsP/GaP	625	360	900	9
SA56-11LGWA	SC56-11GWA		GaP	565	360	1400	
SA56-11LYWA	SC56-11LYWA		GaAsP/GaP	590	240	560	
SA56-11LSRWA	SC56-11LSRWA		GaAlAs	660	2200	5600	

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

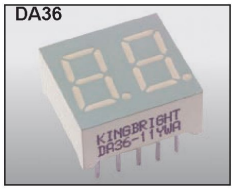
Kingbright®

DUAL DIGIT NUMERIC DISPLAYS

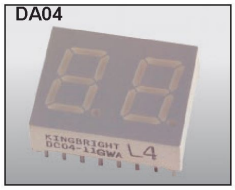
DA03



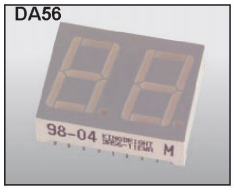
DA36



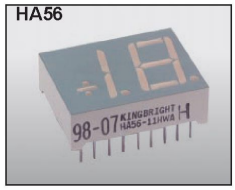
DA04



DA56



HA56

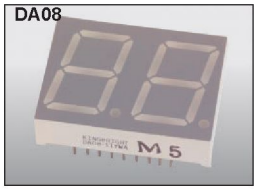


Part No.		Package Description	Emitting Colour + Material	Wave-length (nm)	Iv (µcd) @10mA		Package Dimension
Common Anode	Common Cathode				Min.	Max.	
DA03-11HWA	DC03-11HWA	0,3 inch (7,62 mm) grey face white segment	GaP	700	240	900	18
DA03-11EWA	DC03-11EWA		GaAsP/GaP	625	2200	5600	
DA03-11GWA	DC03-11GWA		GaP	565	900	3600	
DA03-11YWA	DC03-11YWA		GaAsP/GaP	590	2200	5600	
DA03-11SRWA	DC03-11SRWA		GaAlAs	660	3600	14000	
DA36-11HWA	DC36-11HWA	0,36 inch (9 mm) grey face white segment	GaP	700	560	1400	19
DA36-11EWA	DC36-11EWA		GaAsP/GaP	625	2200	3600	
DA36-11GWA	DC36-11GWA		GaP	565	1400	3600	
DA36-11YWA	DC36-11YWA		GaAsP/GaP	590	1400	3600	
DA36-11SRWA	DC36-11SRWA		GaAlAs	660	9000	21000	
DA04-11HWA	DC04-11HWA	0,4 inch (10 mm) grey face white segment	GaP	700	560	1400	20
DA04-11EWA	DC04-11EWA		GaAsP/GaP	625	2200	5600	
DA04-11GWA	DC04-11GWA		GaP	565	2200	3600	
DA04-11YWA	DC04-11YWA		GaAsP/GaP	590	2200	5600	
DA04-11SRWA	DC04-11SRWA		GaAlAs	660	3600	9000	
DA56-11HWA	DC56-11HWA	0,56 inch (14,22 mm) grey face white segment	GaP	700	900	2200	21
DA56-11EWA	DC56-11EWA		GaAsP/GaP	625	2200	5600	
DA56-11GWA	DC56-11GWA		GaP	565	2200	5600	
DA56-11YWA	DC56-11YWA		GaAsP/GaP	590	2200	5600	
DA56-11SRWA	DC56-11SRWA		GaAlAs	660	5600	21000	
HA56-11HWA	HC56-11HWA	0,56 inch (14 mm) grey face white segment	GaP	700	560	1400	22
HA56-11EWA	HC56-11EWA		GaAsP/GaP	625	2200	5600	
HA56-11GWA	HC56-11GWA		GaP	565	2200	5600	
HA56-11YWA	HC56-11YWA		GaAsP/GaP	590	2200	5600	
HA56-11SRWA	HC56-11SRWA		GaAlAs	660	5600	21000	

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

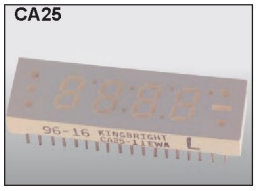
DUAL, THREE & FOUR DIGIT NUMERIC DISPLAYS Kingbright®

DA08



BA56

CA25



CA04

CA56

Part No.		Package Description	Emitting Colour + Material	Wave-length (nm)	Iv (µcd)@10mA		Package Dimension
Common Anode	Common Cathode				Min.	Max.	
DA08-11HWA	DC08-11HWA	0,8 inch (20,3 mm) grey face white segment	GaP	700	360	1400	23
DA08-11EWA	DC08-11EWA		GaAsP/GaP	625	2200	9000	
DA08-11GWA	DC08-11GWA		GaP	565	1400	3600	
DA08-11YWA	DC08-11YWA		GaAsP/GaP	590	1400	3600	
DA08-11SRWA	DC08-11SRWA		GaAlAs	660	9000	21000	
BA56-11HWA BA56-12HWA BA56-13HWA	BC56-11HWA BC56-12HWA BC56-13HWA	0,56 inch (14,22 mm) grey face white segment	GaP	700	900	2200	24
BA56-11EWA BA56-12EWA BA56-13EWA	BC56-11EWA BC56-12EWA BC56-13EWA		GaAsP/GaP	625	2200	9000	
BA56-11GWA BA56-12GWA BA56-13GWA	BC56-11GWA BC56-12GWA BC56-13GWA		GaP	565	3600	5600	
BA56-11YWA BA56-12YWA BA56-13YWA	BC56-11YWA BC56-12YWA BC56-13YWA		GaAsP/GaP	590	2200	5600	
BA56-11SRWA BA56-12SRWA BA56-13SRWA	BC56-11SRWA BC56-12SRWA BC56-13SRWA		GaAlAs	660	5600	21000	
CA25-11HWA CA25-12HWA	CC25-11HWA CC25-12HWA	0,25 inch (6,2 mm) grey face white segment	GaP	700	240	900	25
CA25-11EWA CA25-12EWA	CC25-11EWA CC25-12EWA		GaAsP/GaP	625	1400	5600	
CA25-11GWA CA25-12GWA	CC25-11GWA CC25-12GWA		GaP	565	9000	3600	
CA25-11YWA CA25-12YWA	CC25-11YWA CC25-12YWA		GaAsP/GaP	590	9000	3600	
CA04-41HWA	-	0,4 inch (10,16 mm) grey face white segment	GaP	700	900	1400	26
CA04-41EWA	-		GaAsP/GaP	625	2200	6000	
CA04-41GWA CA04-41GWA-B12.0	-		GaP	565	2200	9000	
CA04-41YWA	-		GaAsP/GaP	590	1400	4000	
CA04-41SRWA	-		GaAlAs	660	9000	21000	
CA56-11HWA CA56-12HWA CA56-21HWA	CC56-11HWA CC56-12HWA CC56-21HWA	0,56 inch (14,22 mm) grey face white segment	GaP	700	560	1400	27
CA56-11EWA CA56-12EWA CA56-21EWA	CC56-11EWA CC56-12EWA CC56-21EWA		GaAsP/GaP	625	2200	5600	
CA56-11GWA CA56-12GWA CA56-21GWA	CC56-11GWA CC56-12GWA CC56-21GWA		GaP	565	2200	5600	
CA56-11YWA CA56-12YWA CA56-21YWA	CC56-11YWA CC56-12YWA CC56-21YWA		GaAsP/GaP	590	2200	5600	
CA56-11SRWA CA56-12SRWA CA56-21SRWA	CC56-11SRWA CC56-12SRWA CC56-21SRWA		GaAlAs	660	5600	21000	

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

Kingbright® ALPHANUMERIC DISPLAYS

PSA05

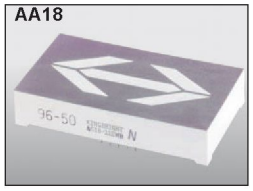
PSA08

PSA12

PSA23

PDA54

AA18



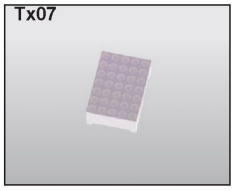
Part No.		Package Description	Emitting Colour + Material	Wave-length (nm)	Iv (µcd)@10mA		Package Dimension
Common Anode	Common Cathode				Min.	Max.	
PSA05-11HWA PSA05-12HWA	PSC05-11HWA PSC05-12HWA	0,5 inch (12,7 mm) grey face white segment	GaP	700	900	2200	28
PSA05-11EWA PSA05-12EWA	PSC05-11EWA PSC05-12EWA		GaAsP/GaP	625	2200	5600	
PSA05-11GWA PSA05-12GWA	PSC05-11GWA PSC05-12GWA		GaP	565	2200	5600	
PSA05-11YWA PSA05-12YWA	PSC05-11YWA PSC05-12YWA		GaAsP/GaP	590	2200	5600	
PSA05-11SRWA PSA05-12SRWA	PSC05-11SRWA PSC05-12SRWA		GaAlAs	660	5600	21000	
PSA08-11HWA PSA08-12HWA	PSC08-11HWA PSC08-12HWA	0,8 inch (20,32 mm) grey face white segment	GaP	700	560	1400	29
PSA08-11EWA PSA08-12EWA	PSC08-11EWA PSC08-12EWA		GaAsP/GaP	625	2200	9000	
PSA08-11GWA PSA08-12GWA	PSC08-11GWA PSC08-12GWA		GaP	565	1400	3600	
PSA08-11YWA PSA08-12YWA	PSC08-11YWA PSC08-12YWA		GaAsP/GaP	590	1400	3600	
PSA08-11SRWA PSA08-12SRWA	PSC08-11SRWA PSC08-12SRWA		GaAlAs	660	9000	21000	
PSA12-11EWA	PSC12-11EWA	1,2 inch (30,48 mm) grey face white segment	GaAsP/GaP	625	2200	14000	30
PSA12-11GWA	PSC12-11GWA		GaP	565	1400	9000	
PSA12-11YWA	PSC12-11YWA		GaAsP/GaP	590	1400	9000	
PSA12-11SRWA	PSC12-11SRWA		GaAlAs	660	3600	14000	
PSA23-11HWA	PSC23-11HWA	2,3 inch (56,8 mm) grey face white segment	GaP	700	900	2200	31
PSA23-11EWA	PSC23-11EWA		GaAsP/GaP	625	5600	14000	
PSA23-11GWA	PSC23-11GWA		GaP	565	3600	9000	
PSA23-11YWA	PSC23-11YWA		GaAsP/GaP	590	3600	9000	
PSA23-11SRWA	PSC23-11SRWA		GaAlAs	660	14000	31000	
PDA54-11HWA PDA54-12HWA	PDC54-11HWA PDC54-12HWA	0,54 inch (13,8 mm) grey face white segment	GaP	700	360	1400	32
PDA54-11EWA PDA54-12EWA	PDC54-11EWA PDC54-12EWA		GaAsP/GaP	625	1400	5600	
PDA54-11GWA PDA54-12GWA	PDC54-11GWA PDC54-12GWA		GaP	565	1400	3600	
PDA54-11YWA PDA54-12YWA	PDC54-11YWA PDC54-12YWA		GaAsP/GaP	590	1400	3600	
PDA54-11SRWA PDA54-12SRWA	PDC54-11SRWA PDC54-12SRWA		GaAlAs	660	3600	14000	

Kingbright® ARROW DISPLAYS

AA18-11HWA	AC18-11HWA	1,8inch (45 mm) grey face white segment	GaP	700	1800	2900	33
AA18-11EWA	AC18-11EWA		GaAsP/GaP	625	10250	12750	
AA18-11GWA	AC18-11GWA		GaP	565	14000	22000	
AA18-11YWA	AC18-11YWA		GaAsP/GaP	590	6300	14000	
AA18-11SRWA	AC18-11SRWA		GaAlAs	660	31000	41000	

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

Tx07



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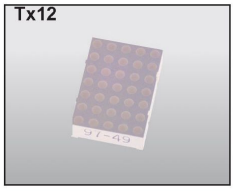

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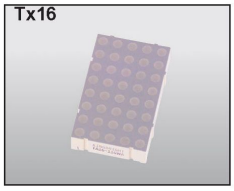

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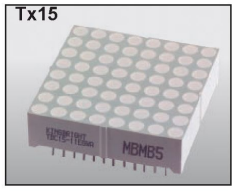
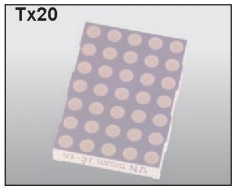


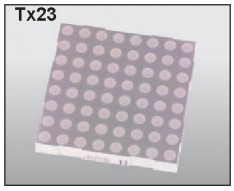
Part No.		Package Description	Emitting Colour + Material	Wave-length (nm)	Iv (µcd)@10mA		Package Dimension
Common Anode	Common Cathode				Min.	Max.	
TA07-11HWA	TC07-11HWA	0,7 inch (18 mm) 5x7 grey face white dot	GaP	700	360	900	34
TA07-11EWA	TC07-11EWA		GaAsP/GaP	625	2200	5600	
TA07-11GWA	TC07-11GWA		GaP	565	2200	5600	
TA07-11YWA	TC07-11YWA		GaAsP/GaP	590	2200	5600	
TA07-11SRWA	TC07-11SRWA		GaAlAs	660	5600	14000	
TA12-11HWA	TC12-11HWA	1,2 inch (30 mm) 5x7 grey face white dot	GaP	700	560	1400	35
TA12-11EWA	TC12-11EWA		GaAsP/GaP	625	3600	9000	
TA12-11GWA	TC12-11GWA		GaP	565	2200	5600	
TA12-11YWA	TC12-11YWA		GaAsP/GaP	590	2200	5600	
TA12-11SRWA	TC12-11SRWA		GaAlAs	660	5600	14000	
TBA12-11EGWA	TBC12-11EGWA		GaAsP/GaP	625	2200	9000	
			GaP	565	2200	9000	
TBA12-12EGWA	TBC12-12EGWA		GaAsP/GaP	625	2200	9000	
			GaP	565	2200	9000	
TBA12-22EGWA	TBC12-22EGWA		GaAsP/GaP	625	2200	9000	
			GaP	565	2200	9000	
TA16-11HWA	TC16-11HWA	1,4 inch (37 mm) 5x8 grey face white dot	GaP	700	560	1400	36
TA16-11EWA	TC16-11EWA		GaAsP/GaP	625	3600	9000	
TA16-11GWA	TC16-11GWA		GaP	565	2200	5600	
TA16-11YWA	TC16-11YWA		GaAsP/GaP	590	2200	5600	
TA16-11SRWA	TC16-11SRWA		GaAlAs	660	5600	14000	
TA15-11HWA	TC15-11HWA	1,5 inch (38 mm) 8x8 grey face white dot	GaP	700	560	1400	37
TA15-11EWA	TC15-11EWA		GaAsP/GaP	625	3600	9000	
TA15-11GWA	TC15-11GWA		GaP	565	2200	5600	
TA15-11YWA	TC15-11YWA		GaAsP/GaP	590	2200	5600	
TA15-11SRWA	TC15-11SRWA		GaAlAs	660	5600	14000	
TBA15-11EGWA	TBC15-11EGWA		GaAsP/GaP	625	2200	9000	
			GaP	565	2200	9000	

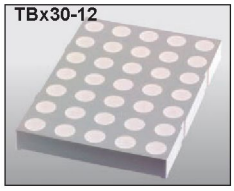
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

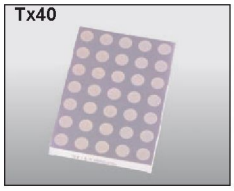
Kingbright®

DOT MATRIX









Part No.		Package Description	Emitting Colour + Material	Wave-length (nm)	Iv (µcd)@10mA		Package Dimension
Common Anode	Common Cathode				Min.	Max.	
TA20-11HWA	TC20-11HWA	2,0 inch (50 mm) 5 x 7 grey face white dot	GaP	700	560	1400	38
TA20-11EWA	TC20-11EWA		GaAsP/GaP	625	3600	9000	
TA20-11GWA	TC20-11GWA		GaP	565	2200	5600	
TA20-11YWA	TC20-11YWA		GaAsP/GaP	590	2200	5600	
TA20-11SRWA	TC20-11SRWA		GaAlAs	660	9000	31000	
TBA20-11EGWA	TBC20-11EGWA		GaAsP/GaP	625	3600	9000	
			GaP	565	2200	9000	
TBA20-12EGWA	TBC20-12EGWA		GaAsP/GaP	625	3600	9000	
			GaP	565	2200	9000	
TBA20-22EGWA	TBC20-22EGWA		GaAsP/GaP	625	3600	9000	
			GaP	565	2200	9000	
TA23-11HWA	TC23-11HWA	2,3 inch (58 mm) 8 x 8 grey face white dot	GaP	700	560	1400	39
TA23-11EWA	TC23-11EWA		GaAsP/GaP	625	3600	9000	
TA23-11GWA	TC23-11GWA		GaP	565	2200	5600	
TA23-11YWA	TC23-11YWA		GaAsP/GaP	590	2200	5600	
TA23-11SRWA	TC23-11SRWA		GaAlAs	660	14000	31000	
TBA23-11EGWA	TBC23-11EGWA		GaAsP/GaP	625	3600	9000	
			GaP	565	2200	5600	
TBA23-12EGWA	TBC23-12EGWA		GaAsP/GaP	625	3600	9000	
			GaP	565	2200	5600	
TA24-11HWA	TC24-11HWA	2,4 inch (60,8 mm) 5 x 8 grey face white dot	GaP	700	560	1400	40
TA24-11EWA	TC24-11EWA		GaAsP/GaP	625	3600	9000	
TA24-11GWA	TC24-11GWA		GaP	565	2200	5600	
TA24-11YWA	TC24-11YWA		GaAsP/GaP	590	2200	5600	
TA24-11SRWA	TC24-11SRWA		GaAlAs	660	14000	31000	
TBA24-11EGWA	TBC24-11EGWA		GaAsP/GaP	625	3600	9000	
			GaP	565	2200	5600	
TBA24-22EGWA	TBC24-22EGWA		GaAsP/GaP	625	3600	9000	
			GaP	565	2200	5600	
TBA30-12EGWA	TBC30-12EGWA	3,0 inch (76,2 mm) 5 x 7 grey face white dot	GaAsP/GaP	625	5600	9000	41
			GaP	565	5600	9000	
TA40-11EWA	TC40-11EWA	4,0 inch (100 mm) 5 x 7 grey face white dot	GaAsP/GaP	625	3600	9000	42
TA40-11GWA	TC40-11GWA		GaP	565	2200	5600	
TA40-11YWA	TC40-11YWA		GaAsP/GaP	590	2200	5600	
TA40-11SRWA	TC40-11SRWA		GaAlAs	660	14000	31000	
TBA40-11EGWA	TBC40-11EGWA		GaAsP/GaP	625	3600	9000	
			GaP	565	2200	5600	
TBA40-12EGWA	TBC40-12EGWA		GaAsP/GaP	625	3600	9000	
			GaP	565	2200	5600	

NOTES:
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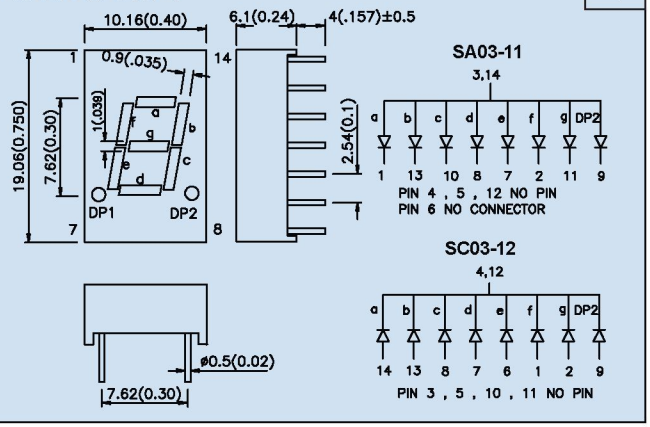
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

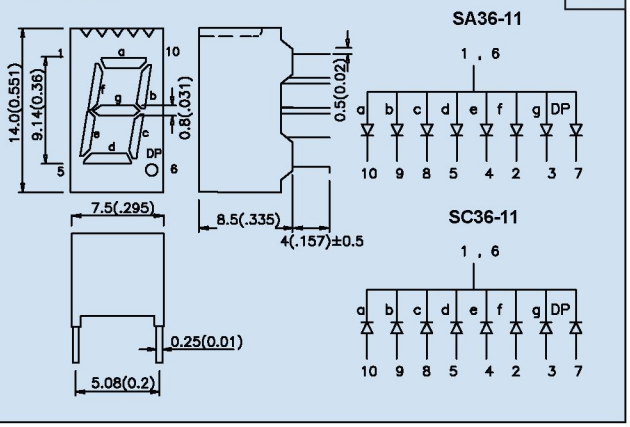
•SA/SC03 Series

1



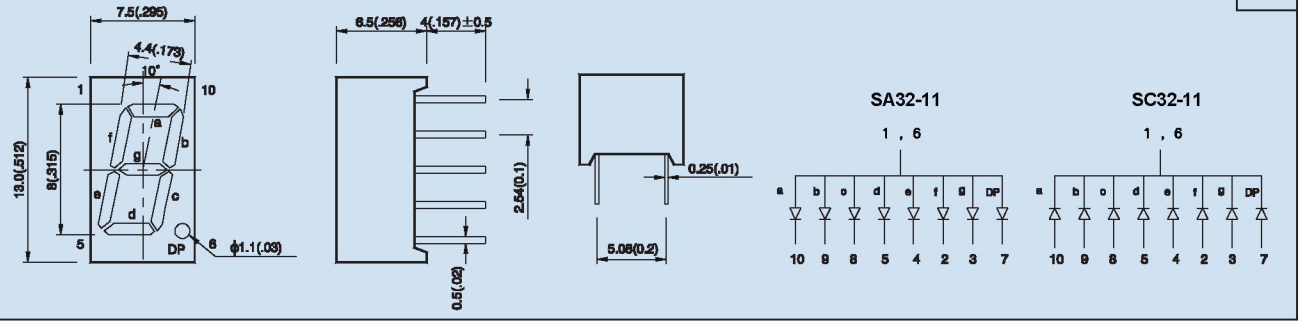
•SA/SC36 Series

3



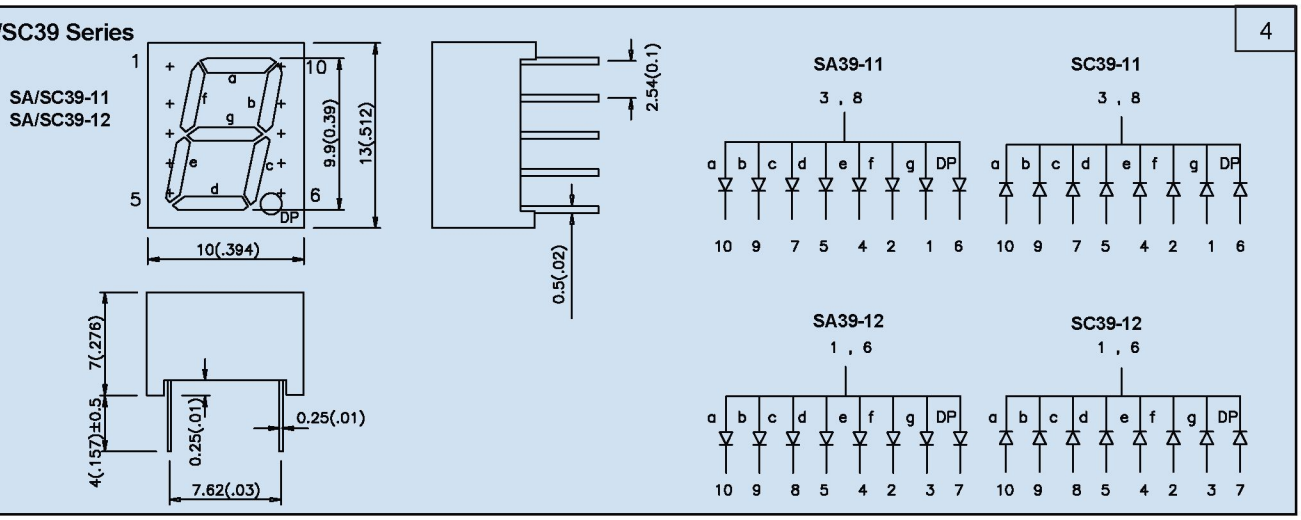
•SA/SC32 Series

2



•SA/SC39 Series

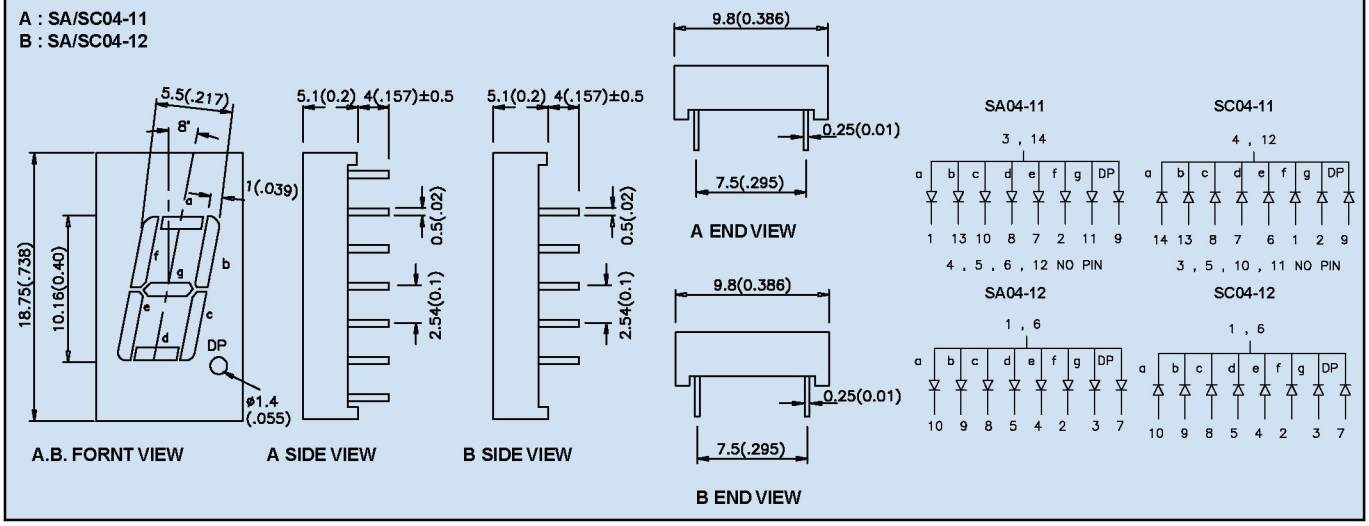
4



•SA/SC04 Series

5

A : SA/SC04-11
B : SA/SC04-12



NOTES:
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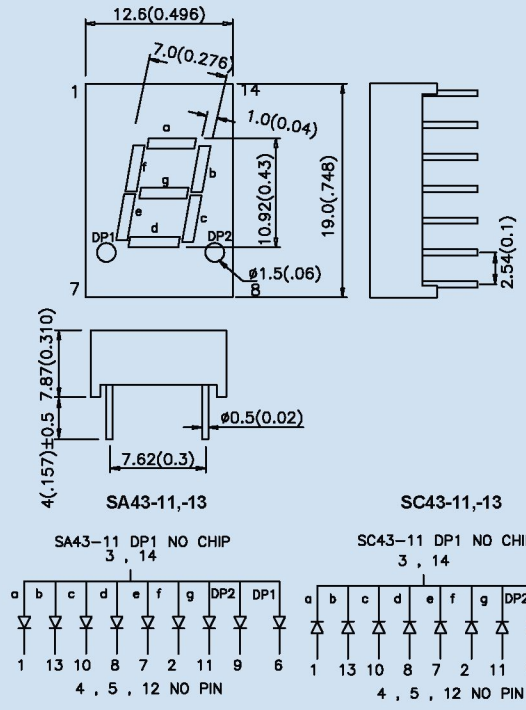
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

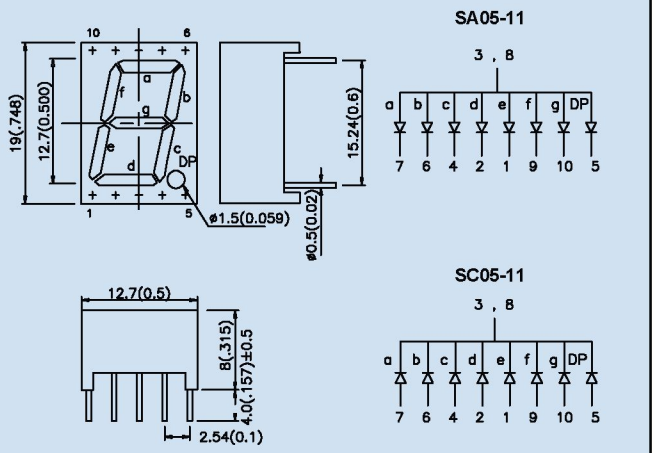
•SA/SC43 Series

6



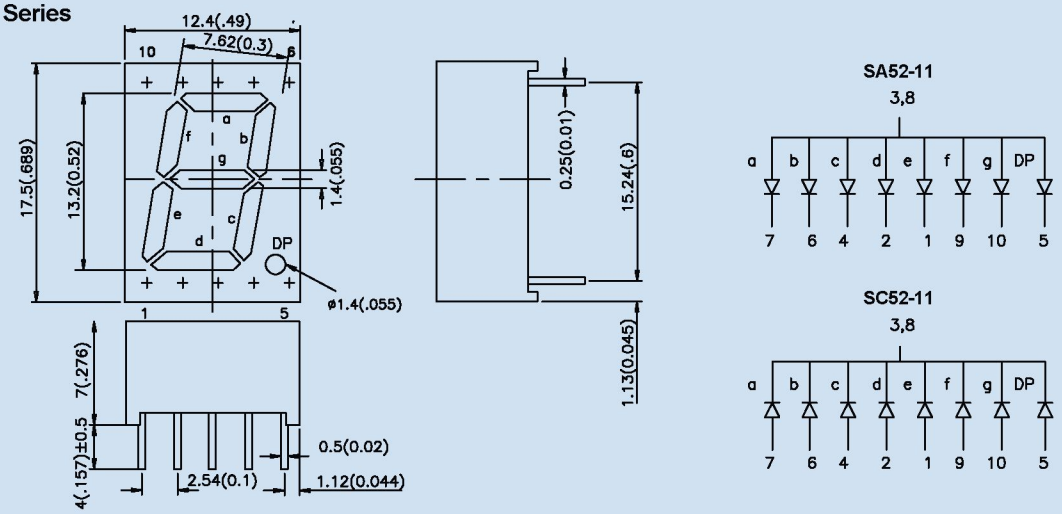
•SA/SC05 Series

7



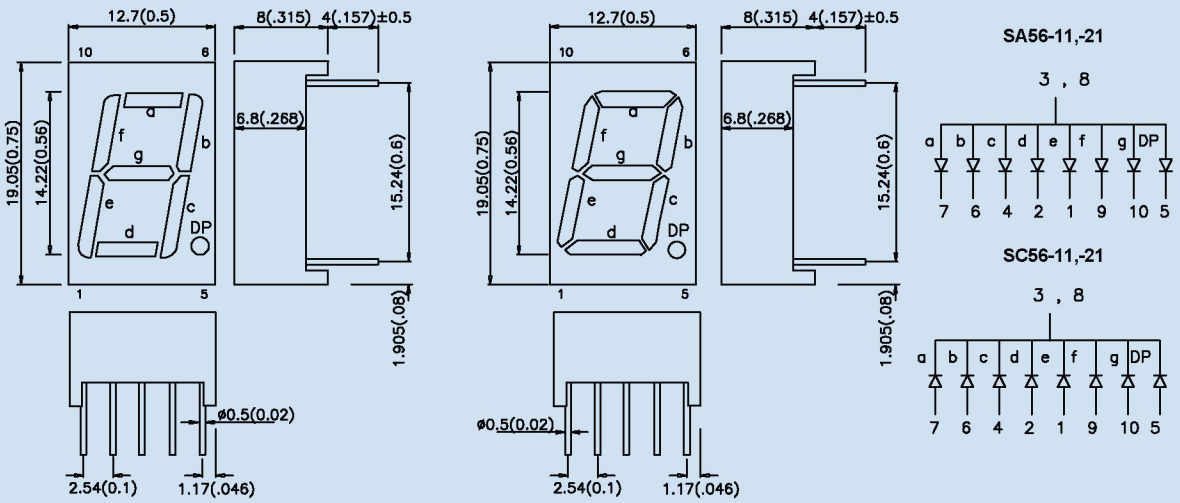
•SA/SC52 Series

8



•SA/SC56 Series

9

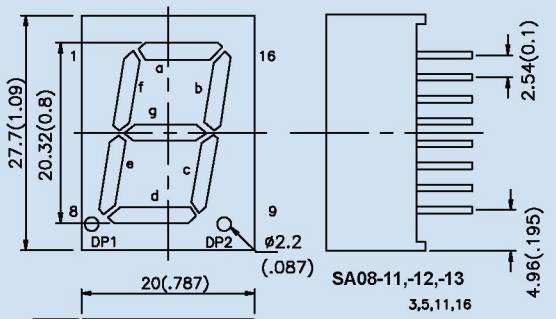


NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

•SA/SC08 Series

10

SA/SC08-11,-12,-13



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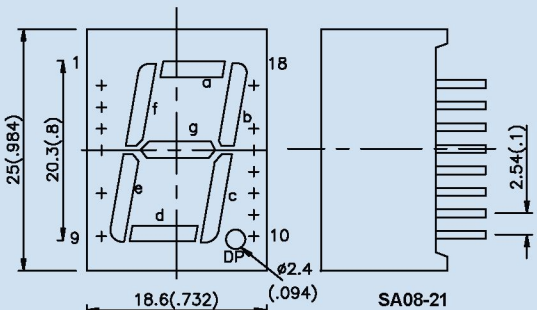
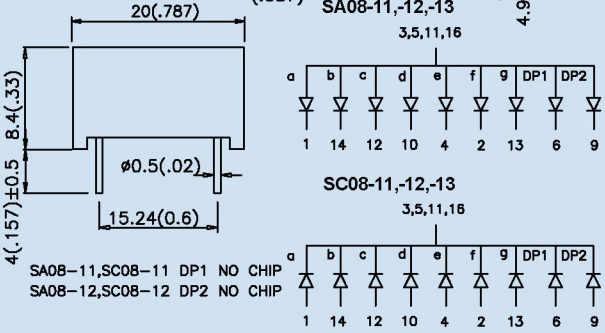
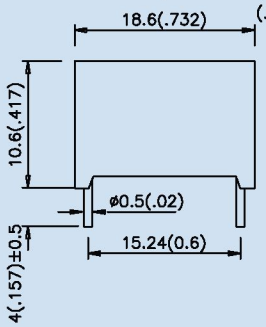




SA08-11,-12,-13

SC08-11,-12,-13



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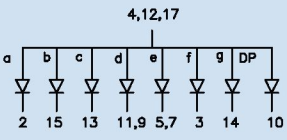

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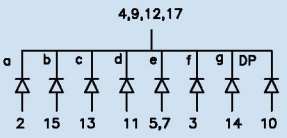
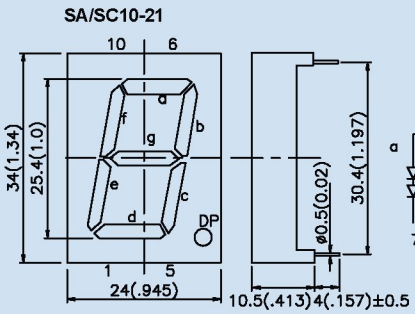


•SA/SC10 Series

11

SA/SC10-21



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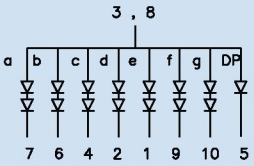

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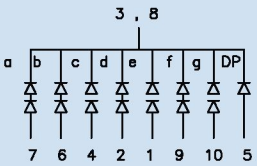

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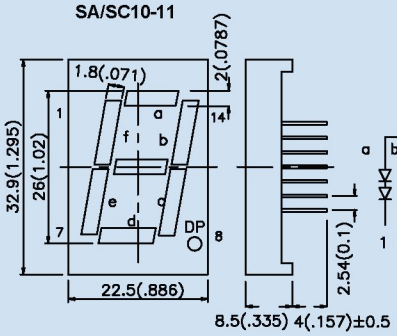

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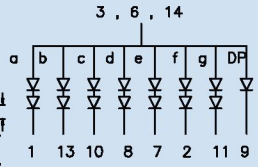
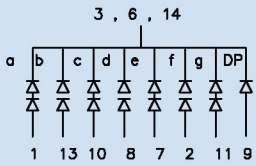
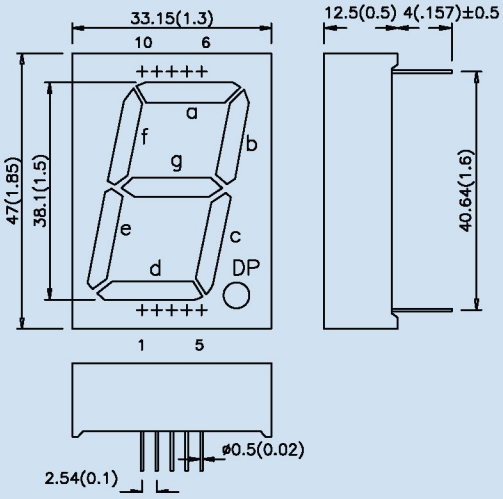


SC10-11

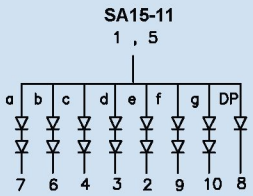


•SA/SC15,SBA/SBC15 Series

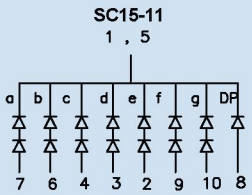
12



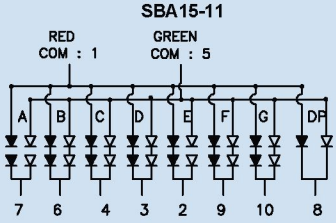
SA15-11



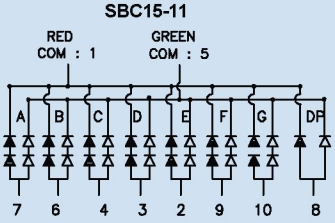
SC15-11



SBA15-11



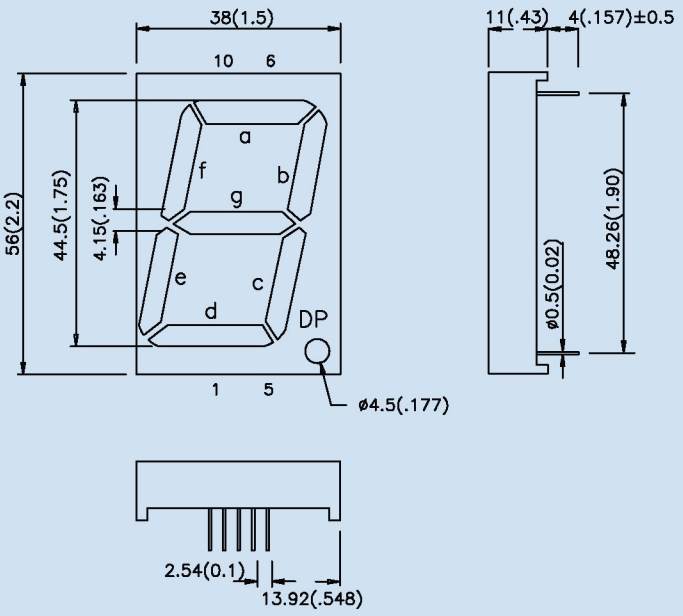
SBC15-11

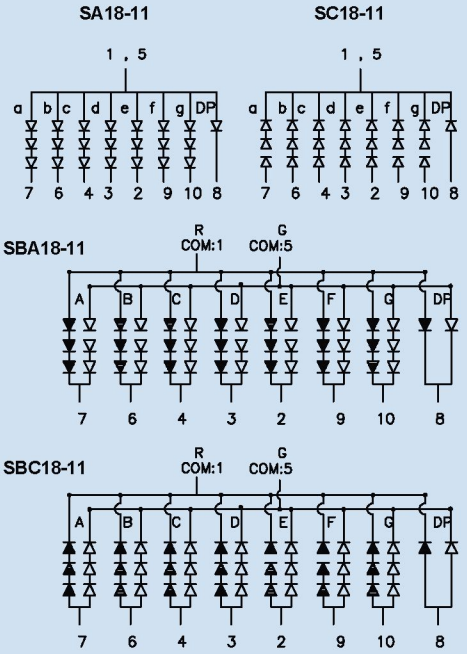


NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

•SA/SC18,SBA/SBC18 Series

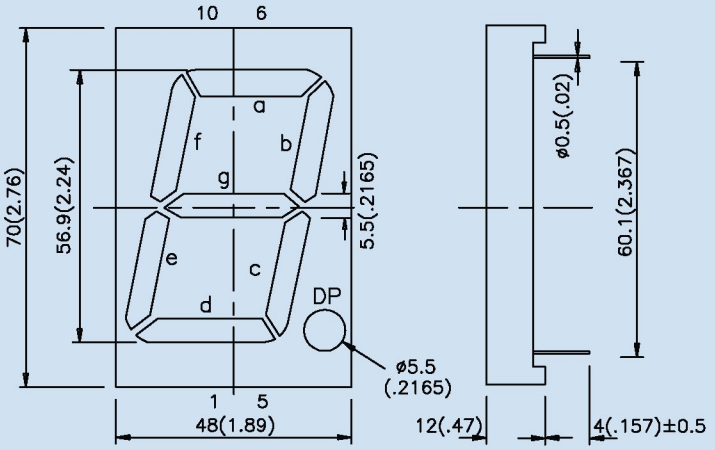
13

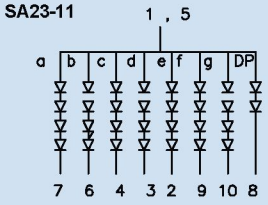


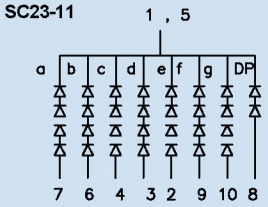


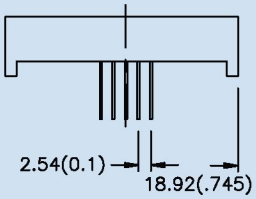
•SA/SC23,SBA/SBC23 Series

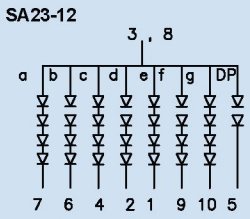
14

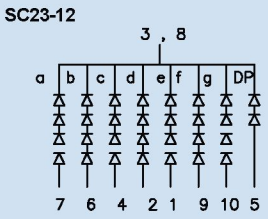


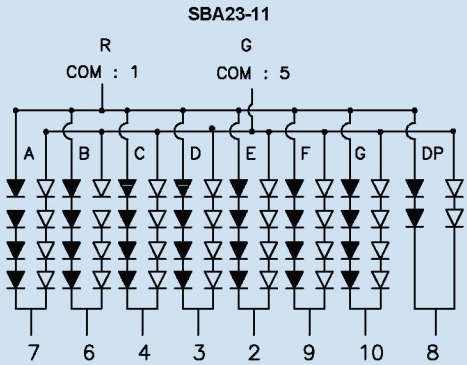


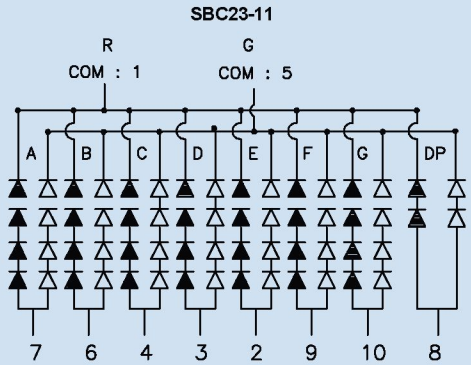








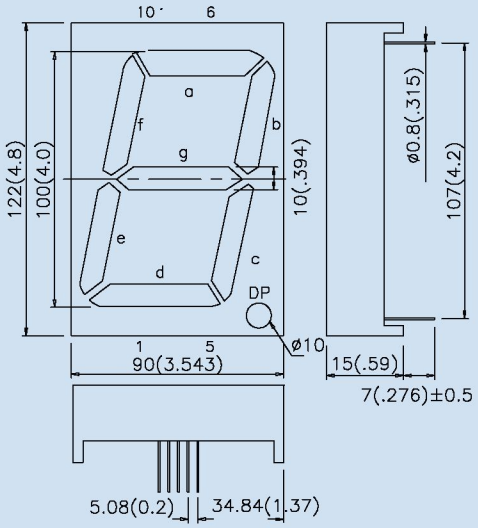


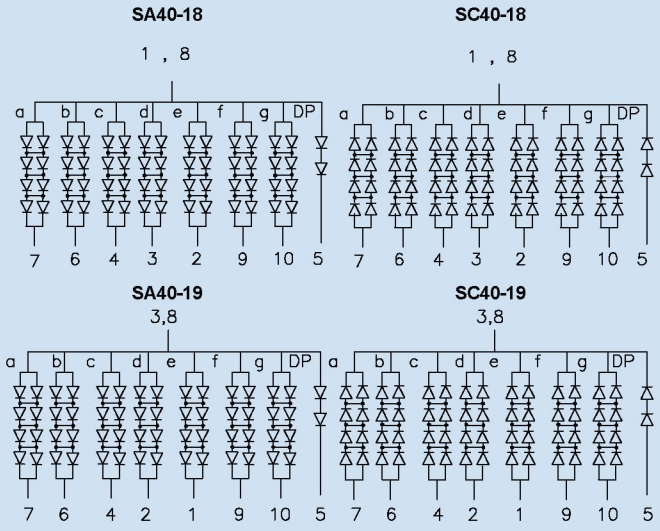


NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

•SA/SC40 Series

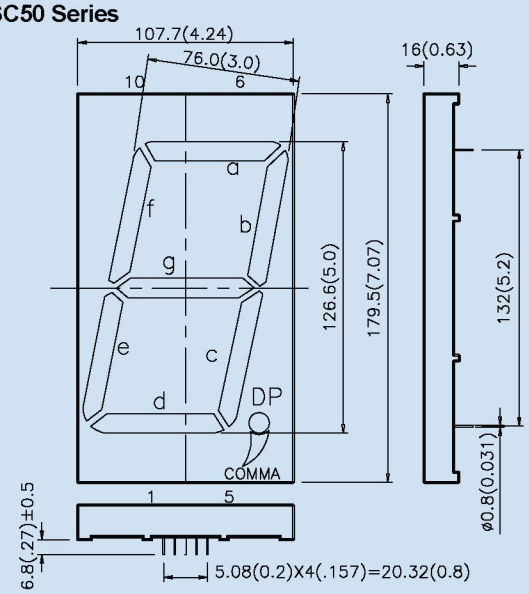
15

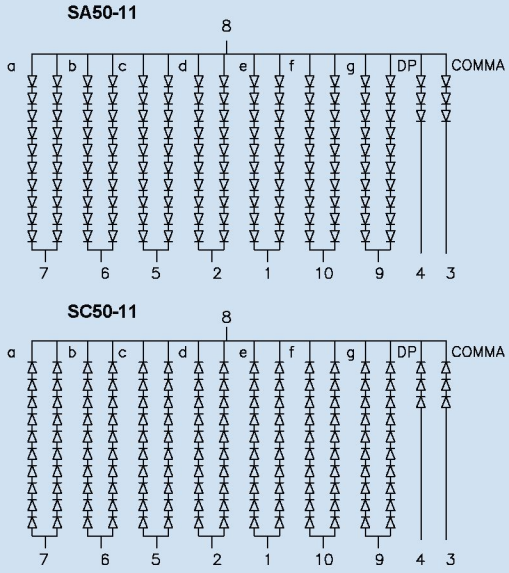




•SA/SC50 Series

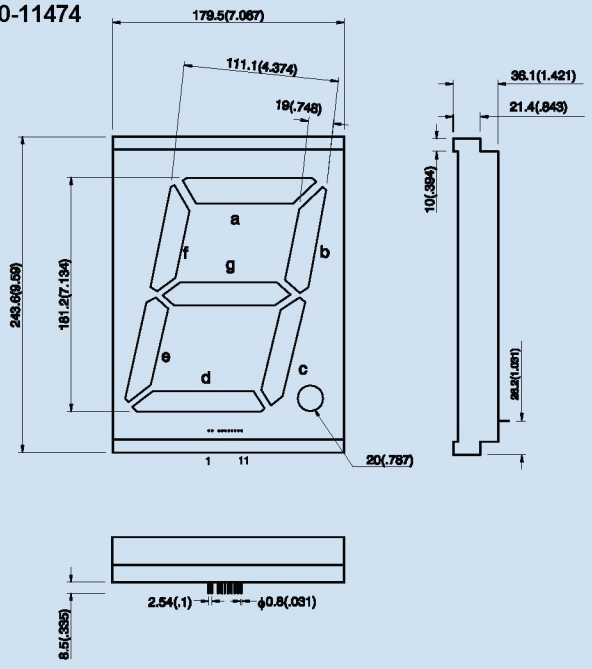
16

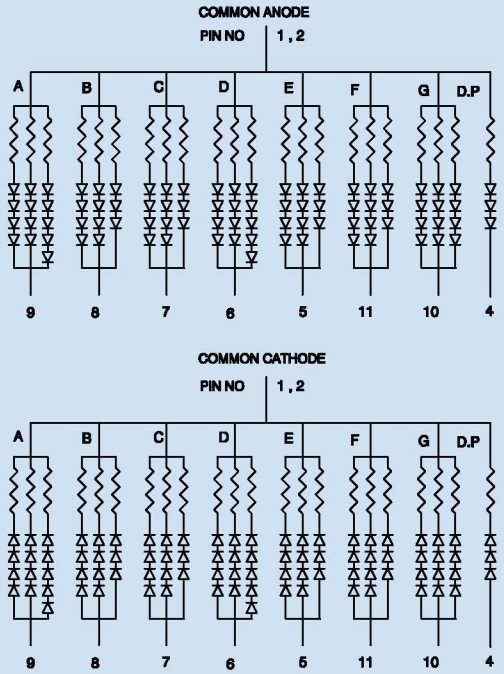




•LSA70-11474
•LSC70-11474

17

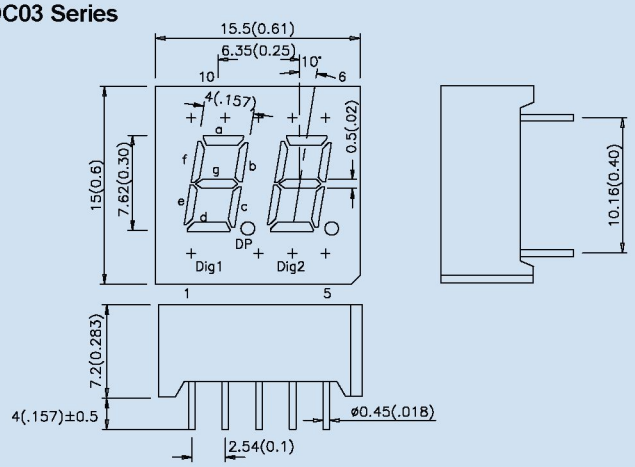


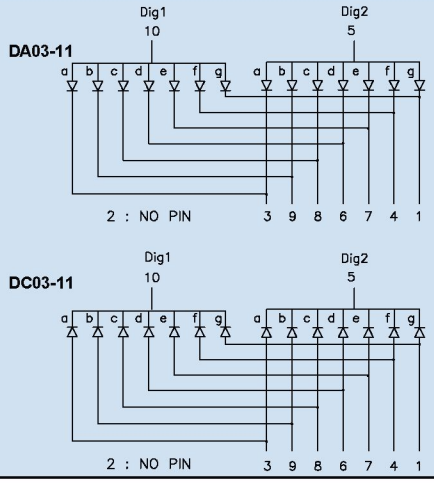


NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

•DA/DC03 Series

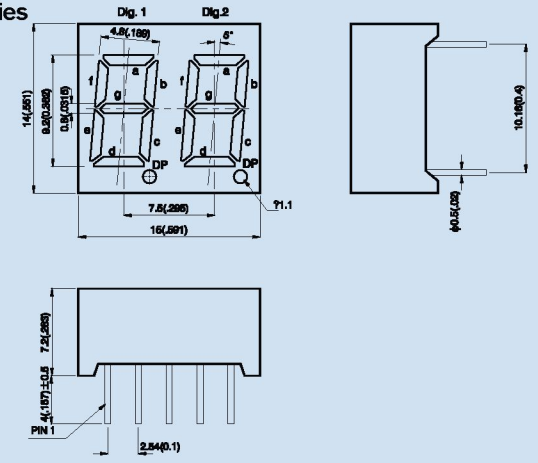
18

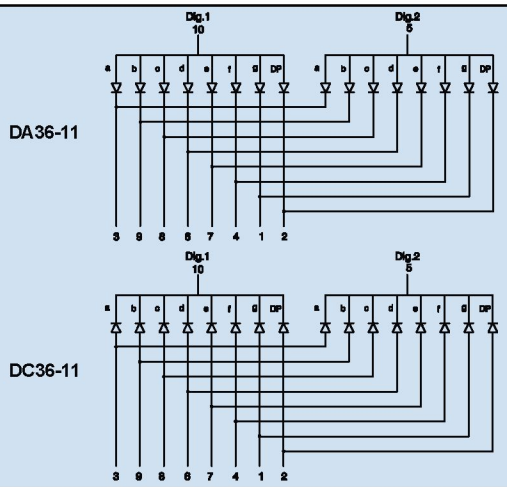




•DA/DC36 Series

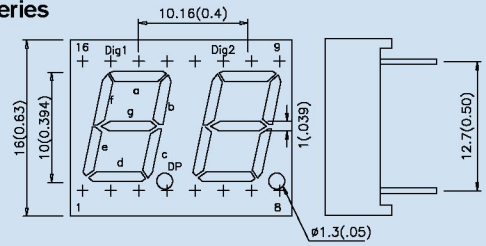
19

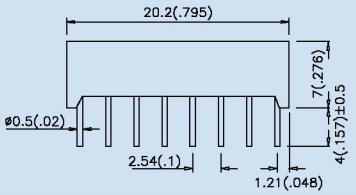


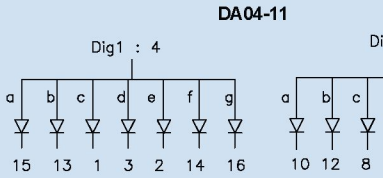


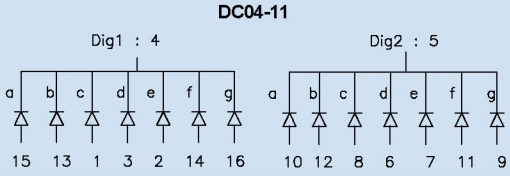
•DA/DC04 Series

20



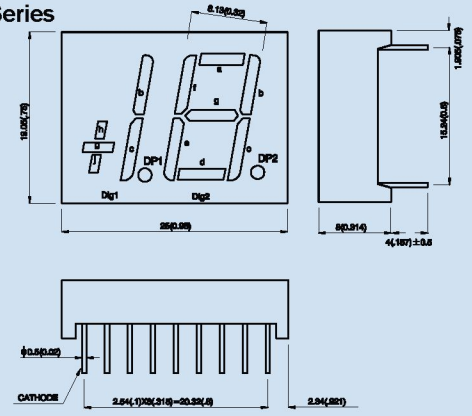


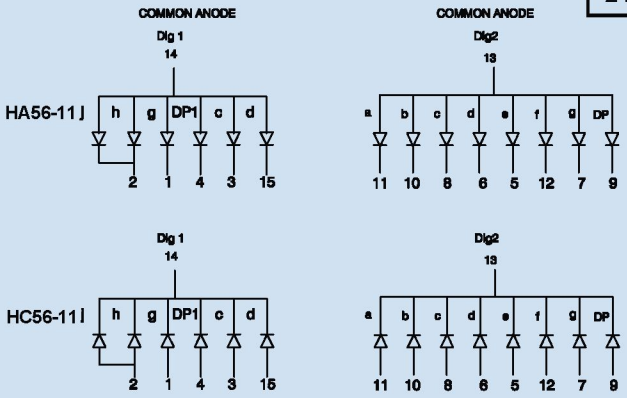




•HA/HC56 Series

21

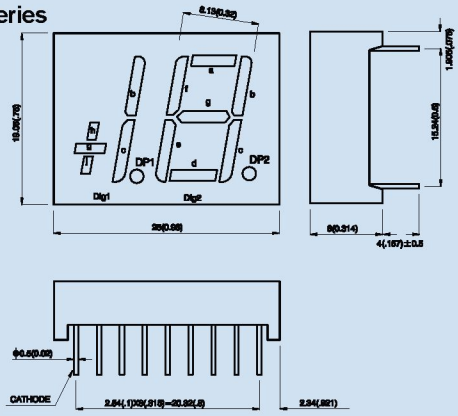


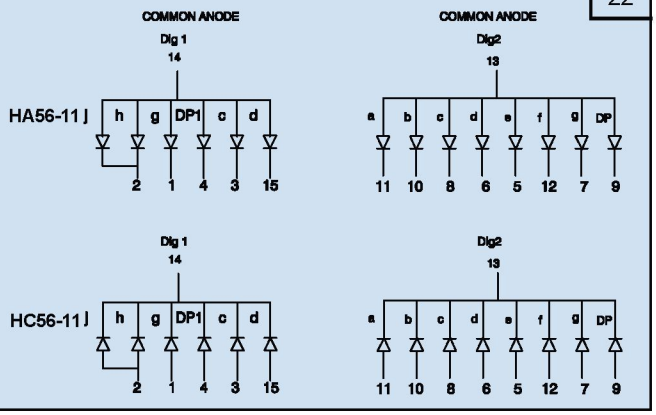


NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

•HA/HC56 Series

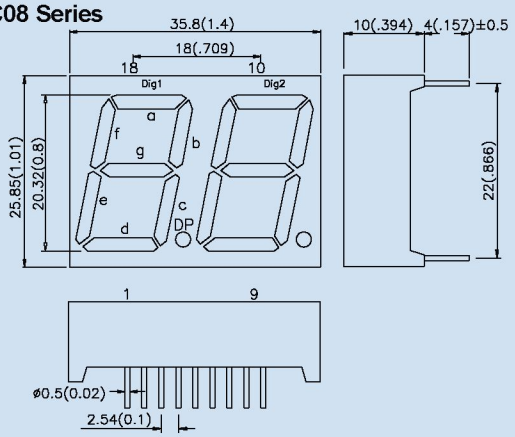
22

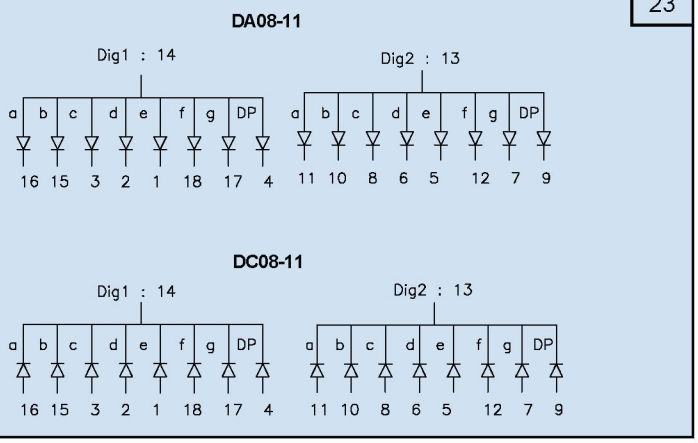




•DA/DC08 Series

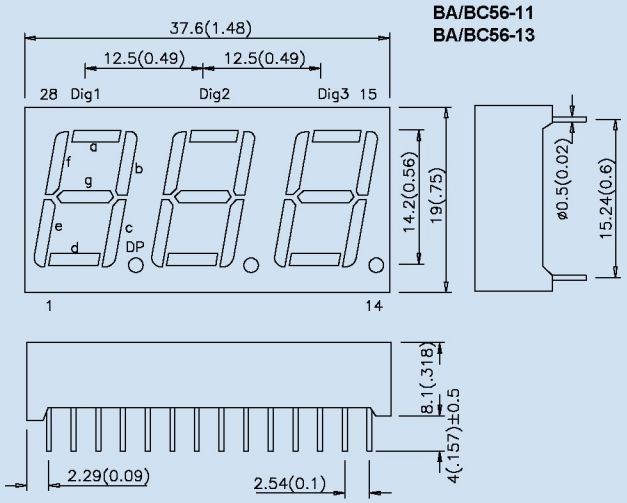
23

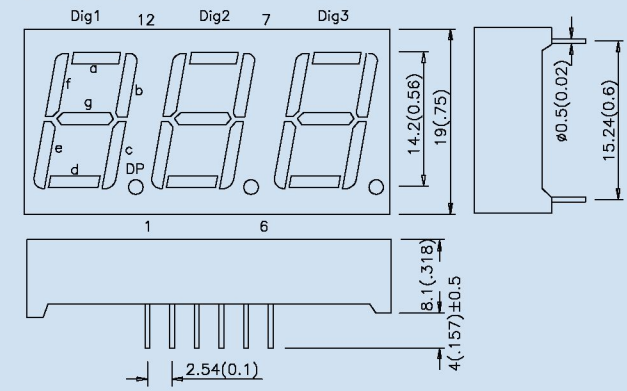


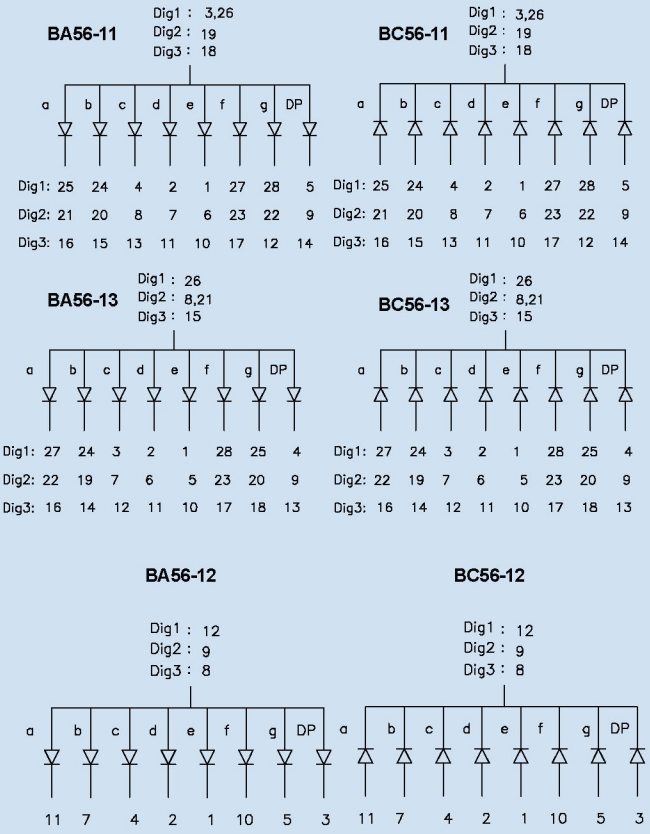


•BA/BC56 Series

24



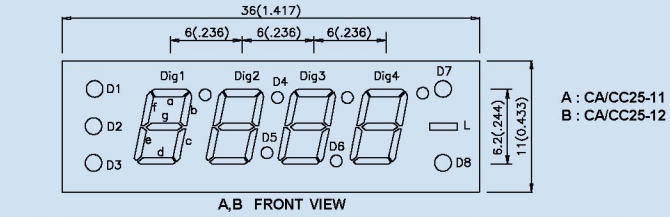


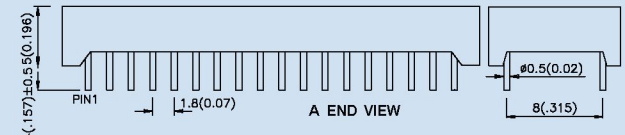


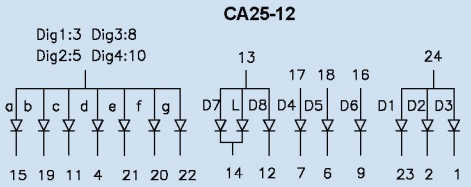
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

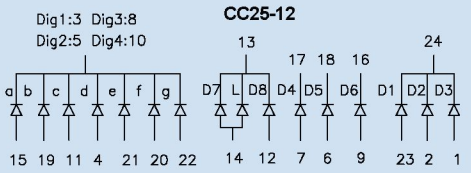
•CA/CC25 Series

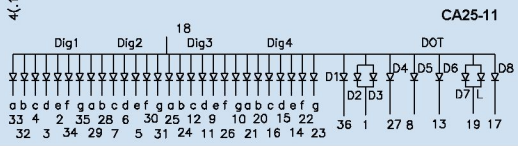
25

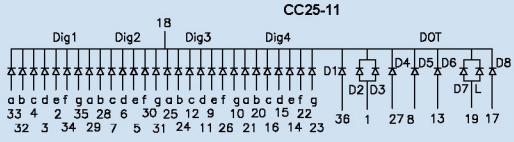






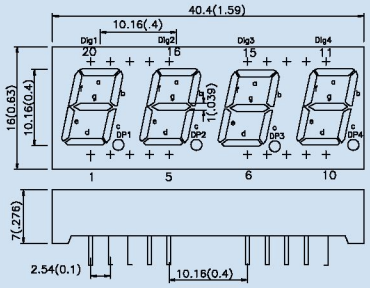


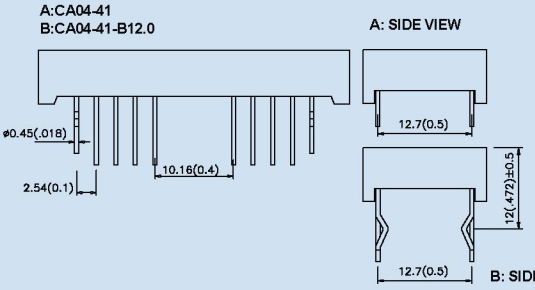


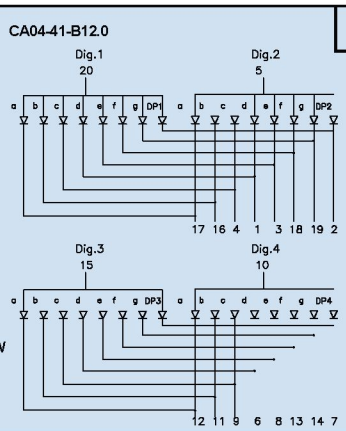


•CA04-41/ CA04-41-B12.0 Series

26

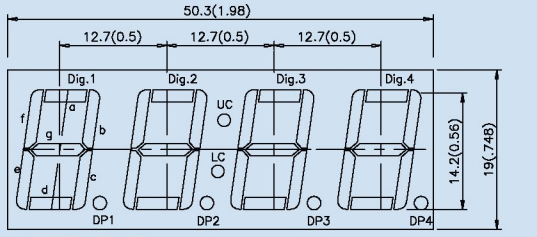


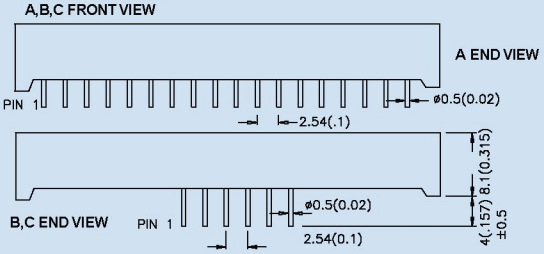


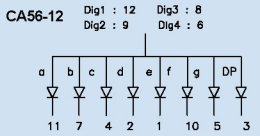


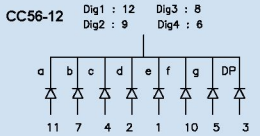
•CA/CC56-11,-12,-21 Series

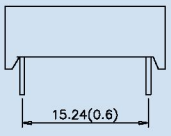
27

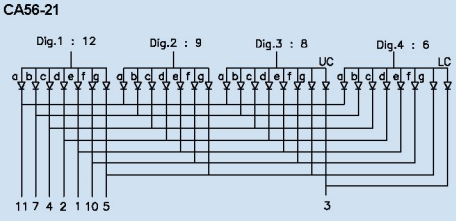


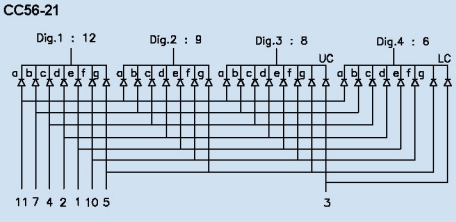


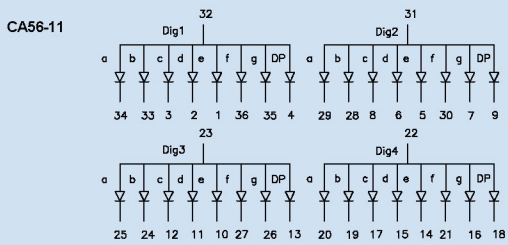


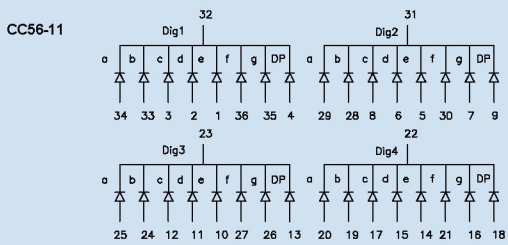








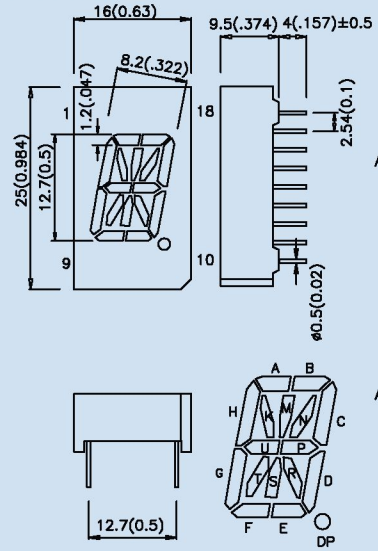




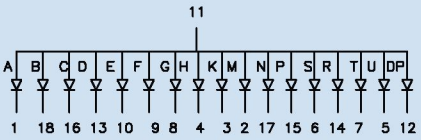
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

•PSA/PSC05 Series

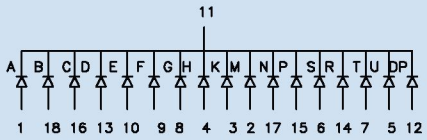
28



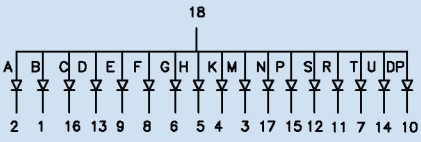
PSA05-11



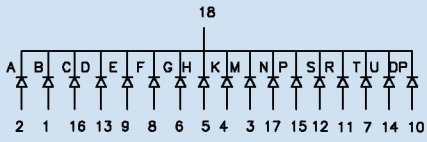
PSC05-11



PSA05-12

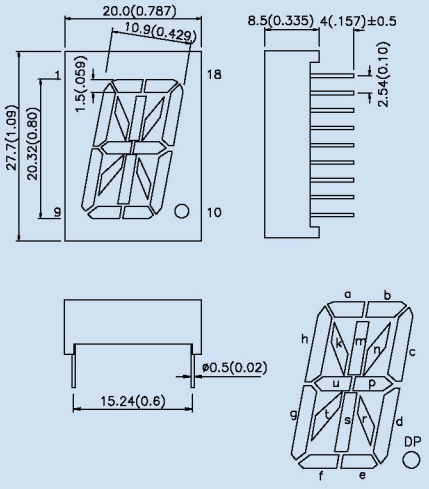


PSC05-12

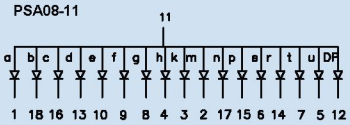


•PSA/PSC08 Series

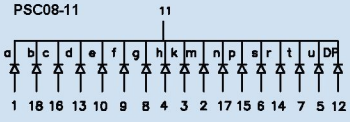
29



PSA08-11



PSC08-11



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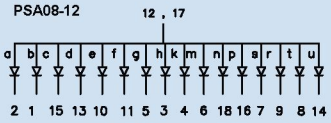
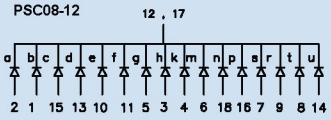
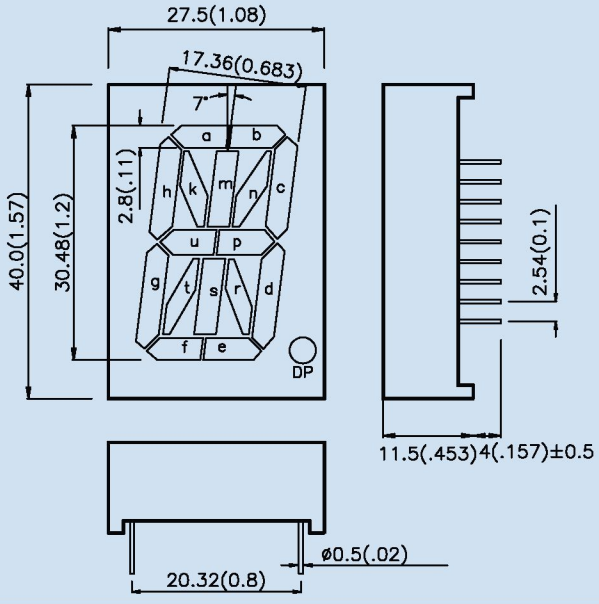


PSC08-12

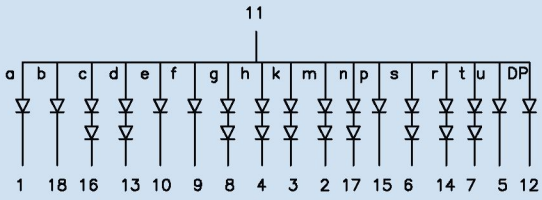


•PSA/PSC12 Series

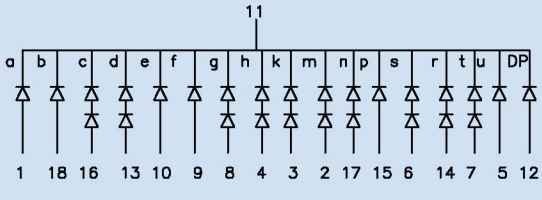
30



PSA12-11



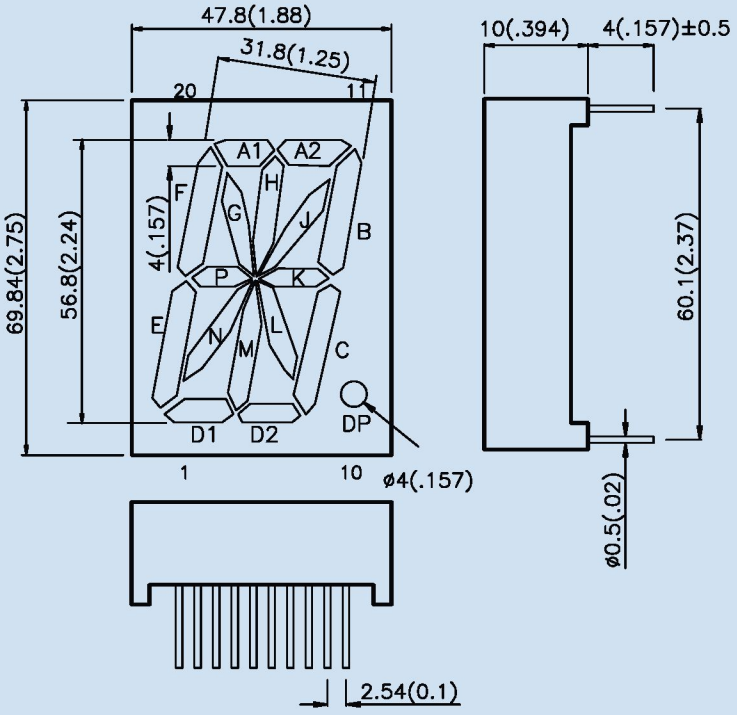
PSC12-11



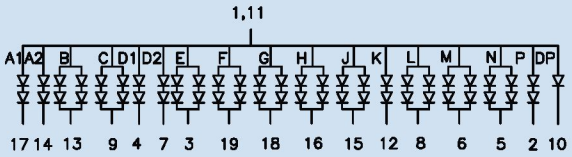
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

•PSA/PSC23 Series

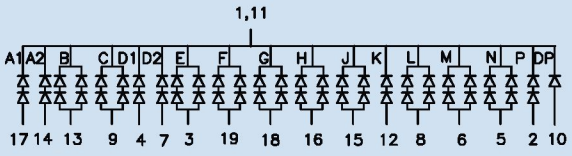
31



PSA23-11

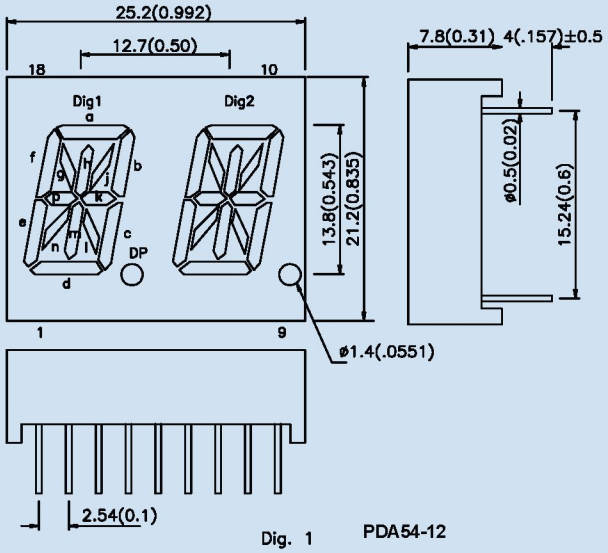


PSC23-11



•PDA/PDC54 Series

32



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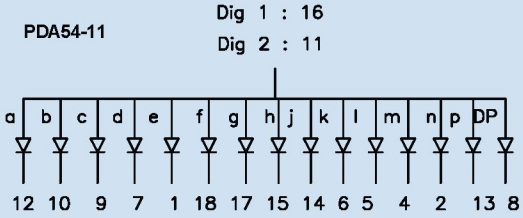

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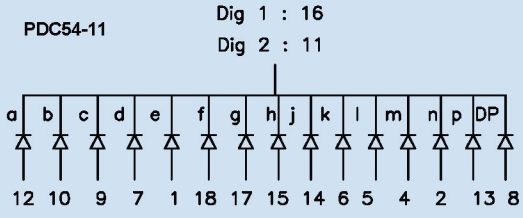

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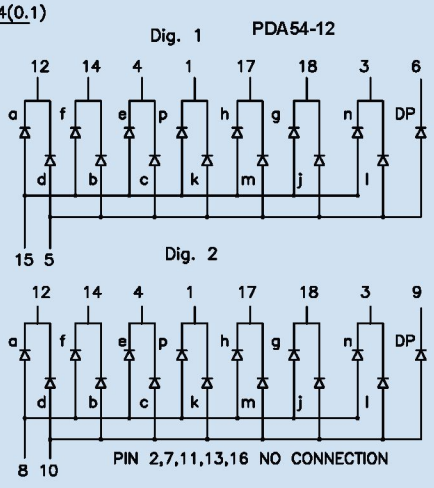
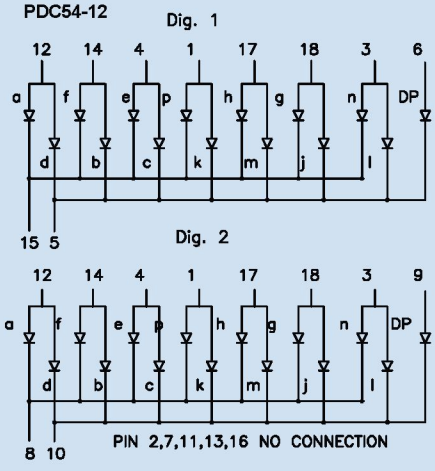


PDC54-12

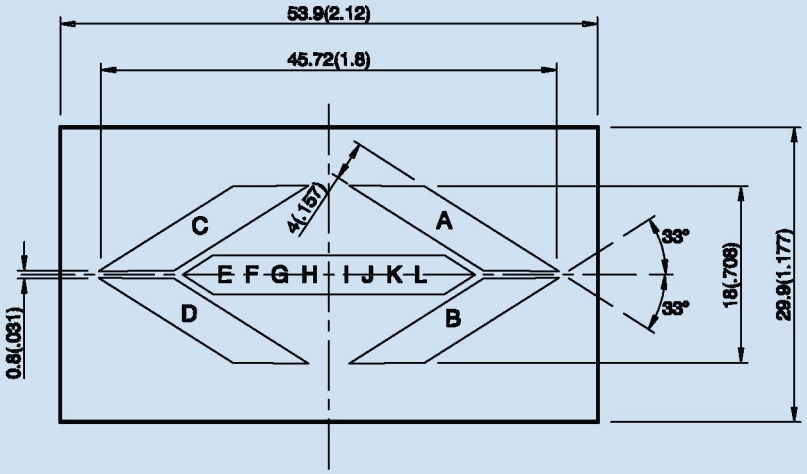


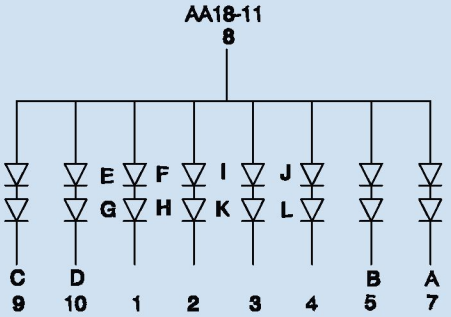
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

•AA18-11, AC18-11

33

1.8 INCH ARROW DISPLAY





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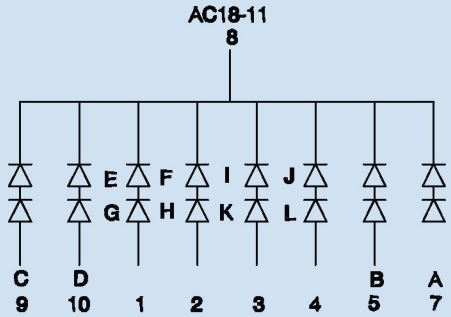

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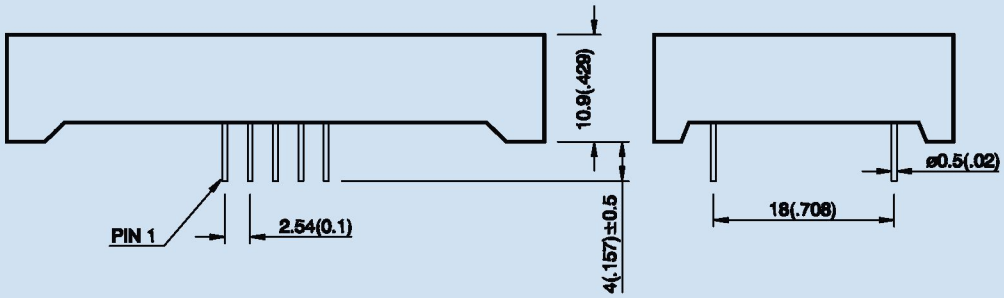
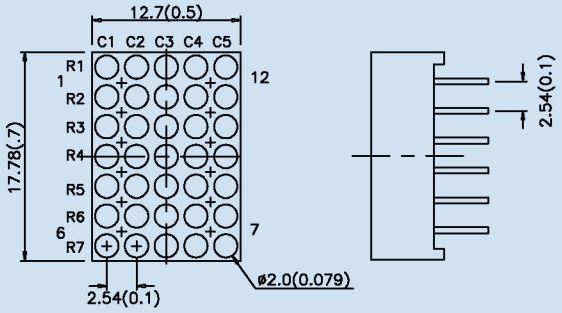
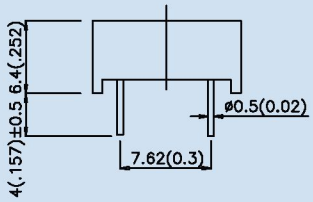


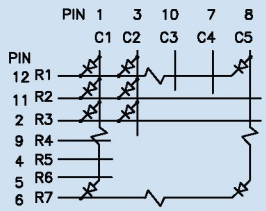
•TA/TC07 Series

34

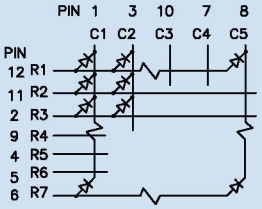




TA07-11



TC07-11



NOTES:
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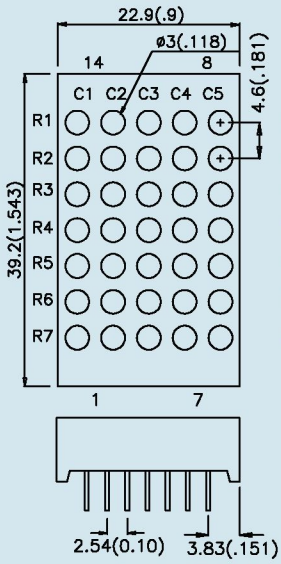
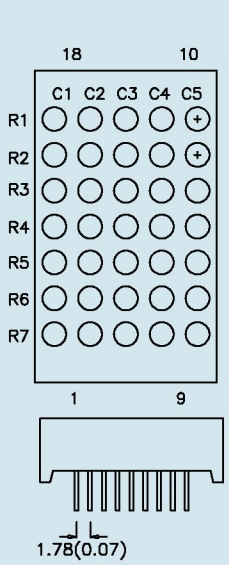
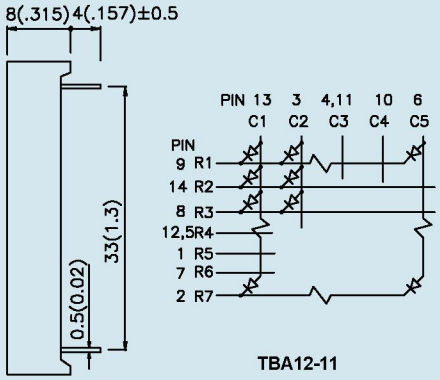
A :TA/TC12-11



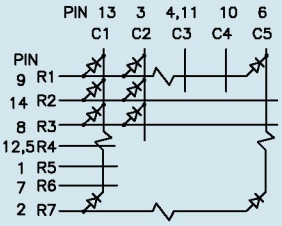
B :TBA/TBC12-11



TA12-11

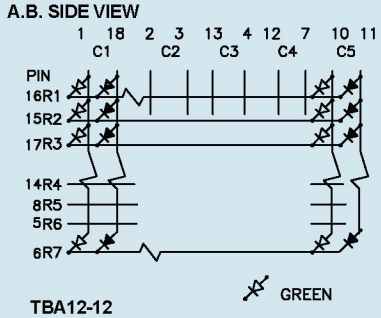


TC12-11



A.B. SIDE VIEW

TBA12-11



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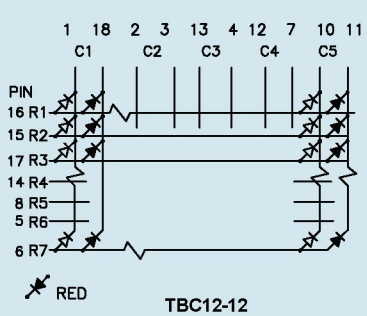
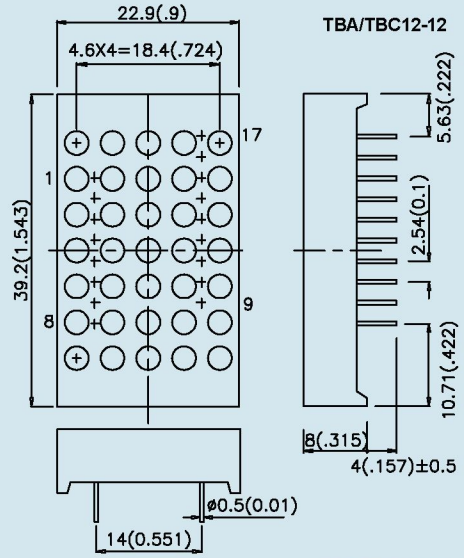
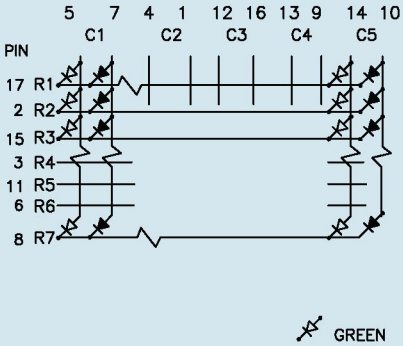


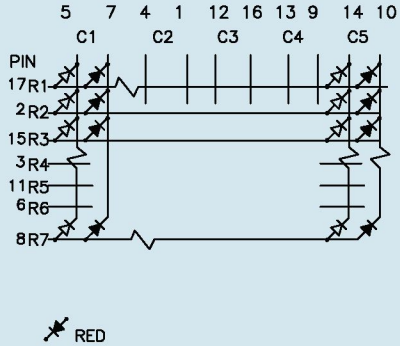
TBA/TBC12-12



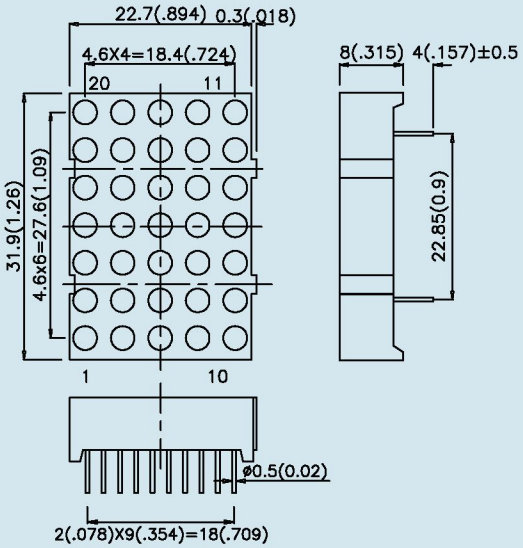
TBA12-12



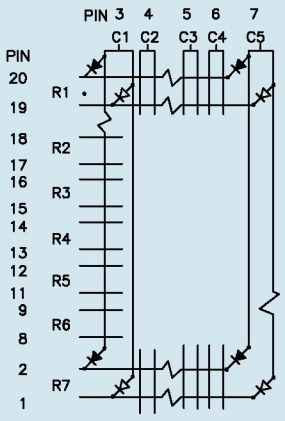
TBC12-12



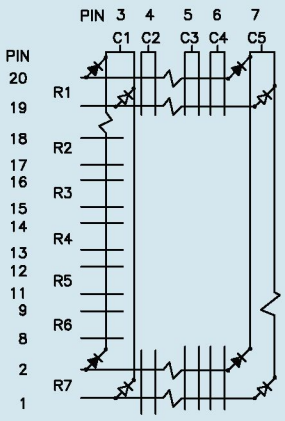
TBA/TBC12-22



TBA12-22

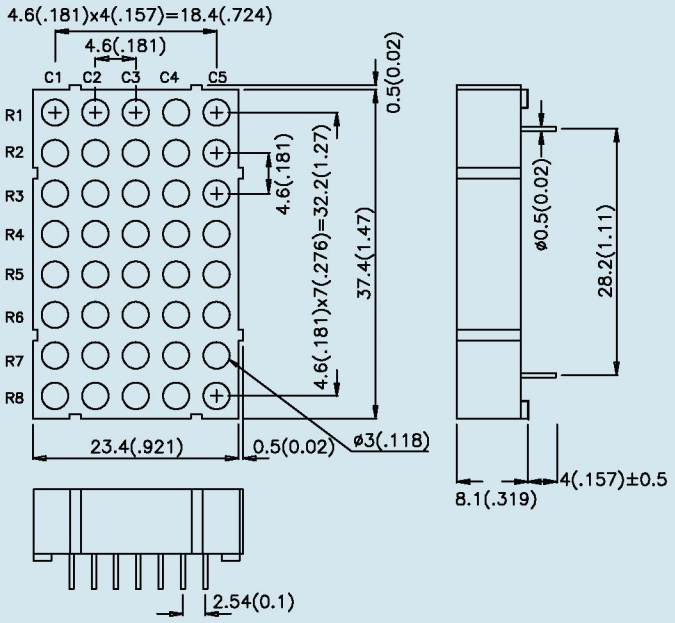


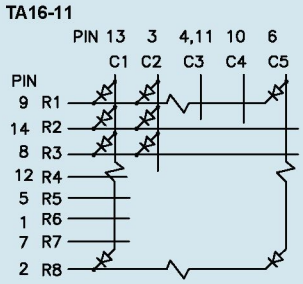
TBC12-22

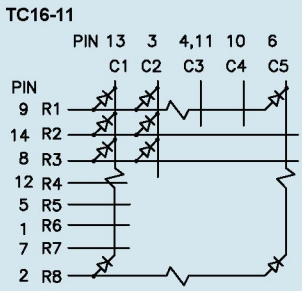


NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

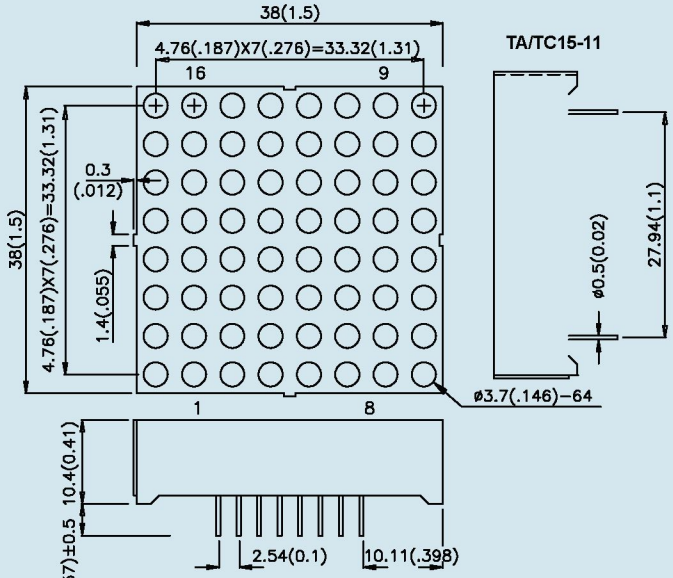
•TA/TC16 Series

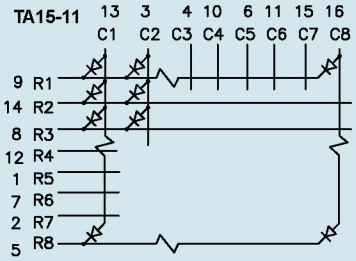


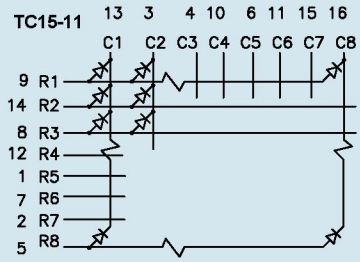


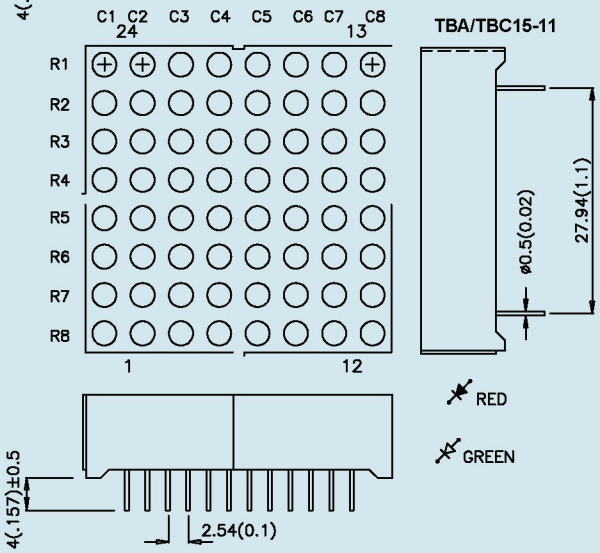


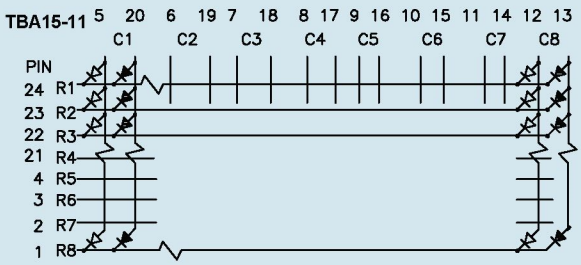
•TA/TC15,TBA/TBC15-11 Series

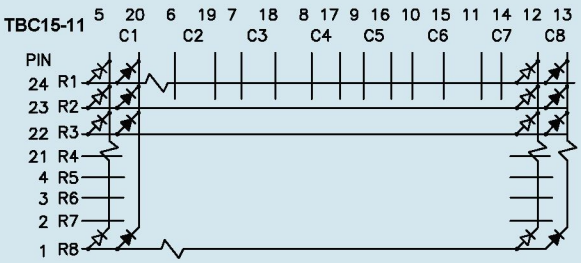








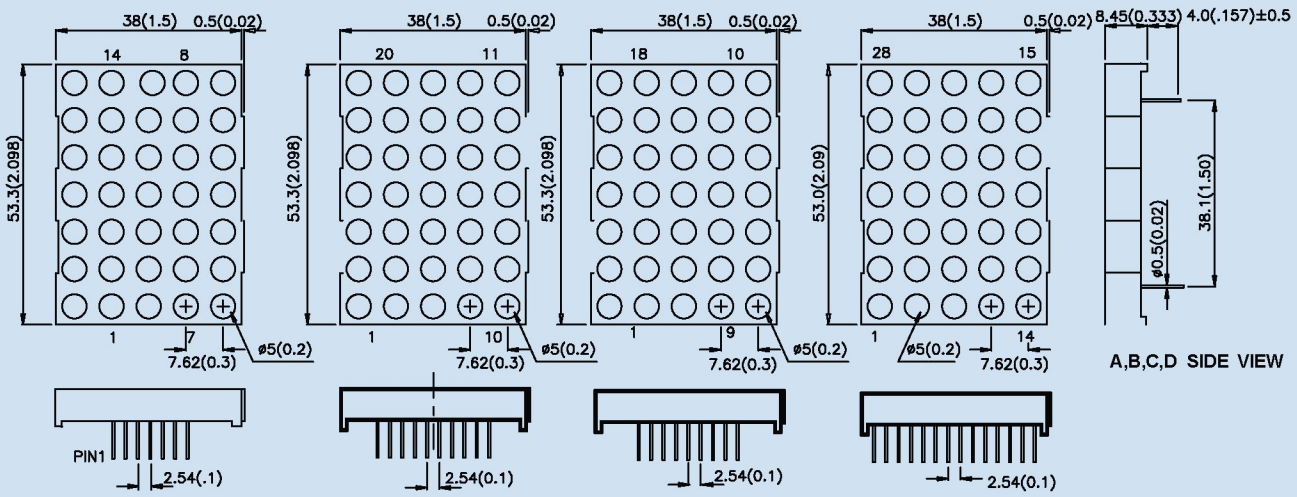




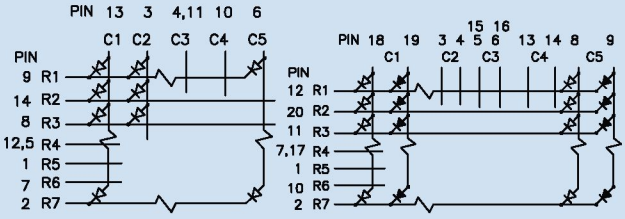
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

•TA/TC20,TBA/TBC20 Series

A : TA/TC20-11 B : TBA/TBC20-11 C : TBA/TBC20-12 D : TBA/TBC20-22

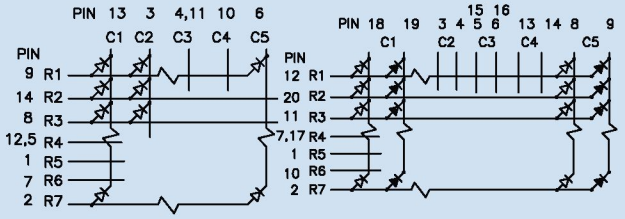


TA20-11 TBA20-11

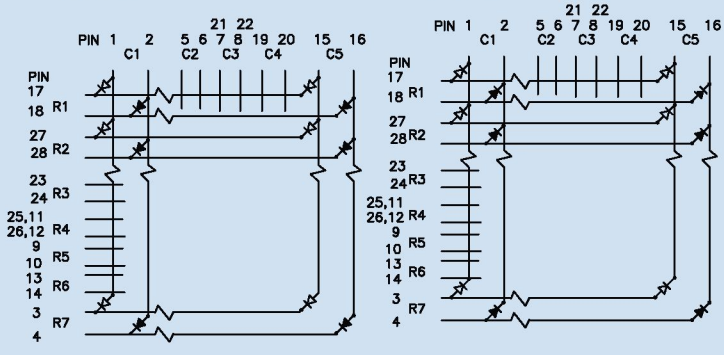


GREEN RED

TC20-11 TBC20-11

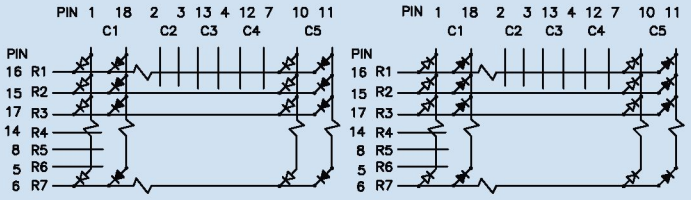


TBA20-22 TBC20-22



GREEN RED

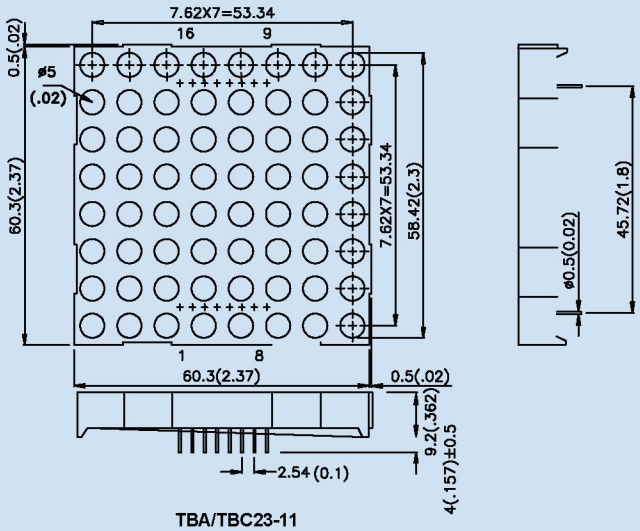
TBA20-12 TBC20-12



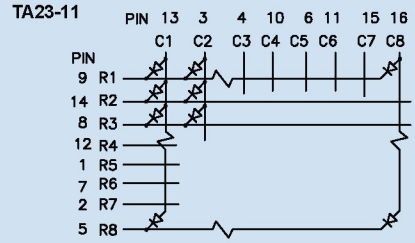
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

•TA/TC23,TBA/TBC23 Series

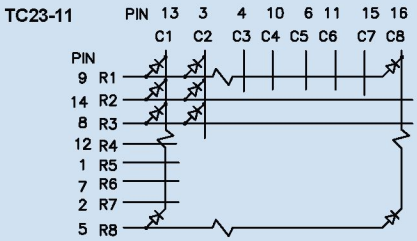
TA/TC23-11



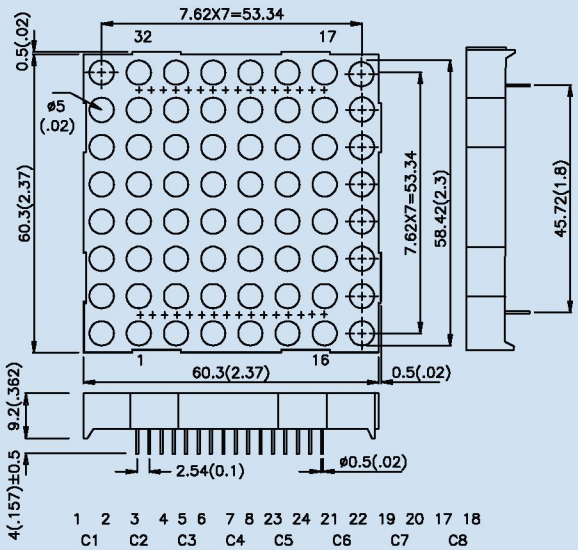
TA23-11



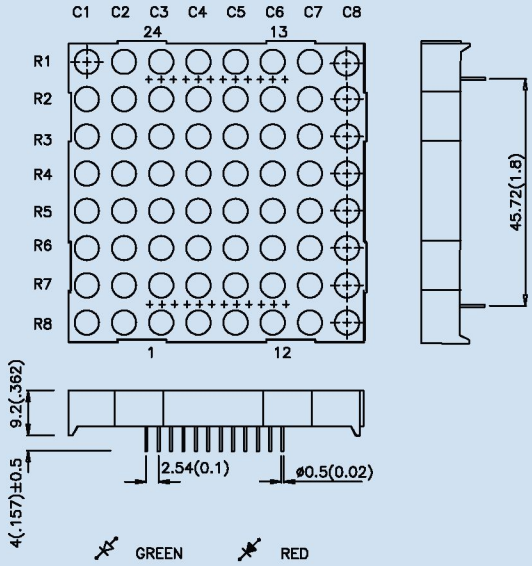
TC23-11



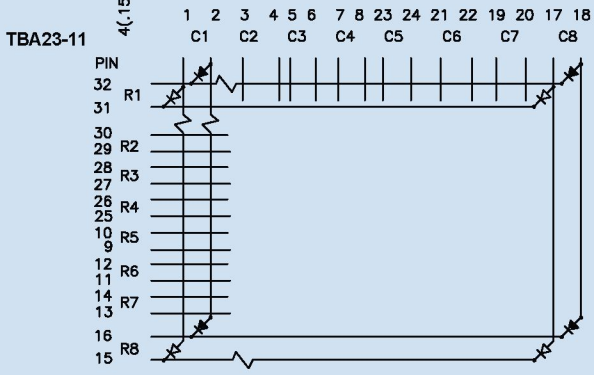
TBA/TBC23-11



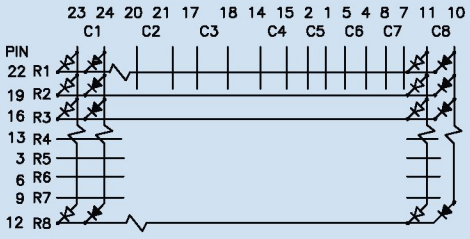
TBA/TBC23-12



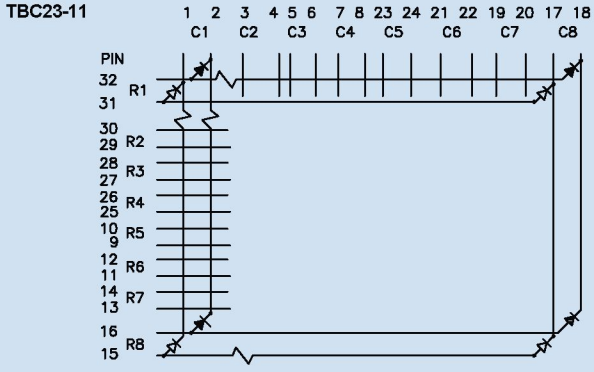
TBA23-11



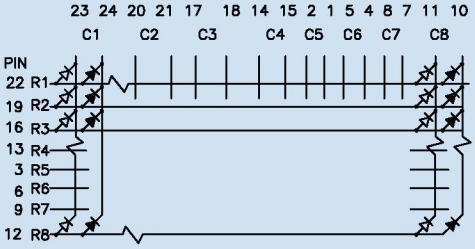
TBA23-12



TBC23-11



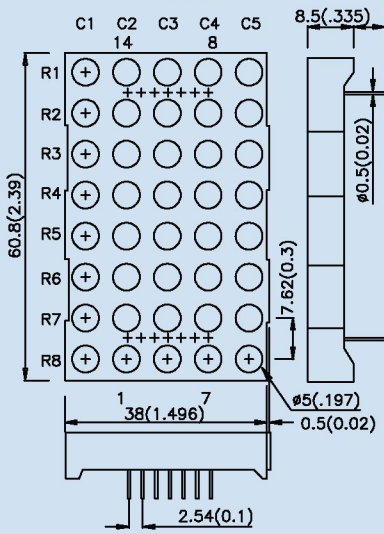
TBC23-12



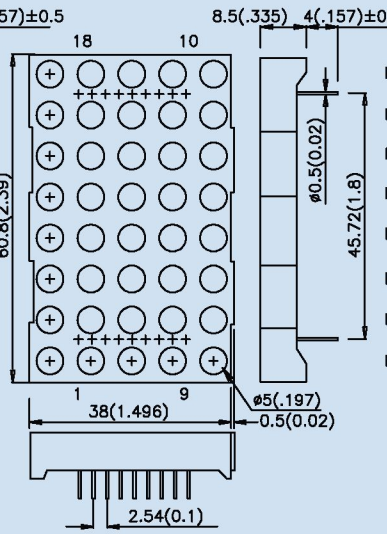
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

•TA/TC24,TBA/TBC24 Series

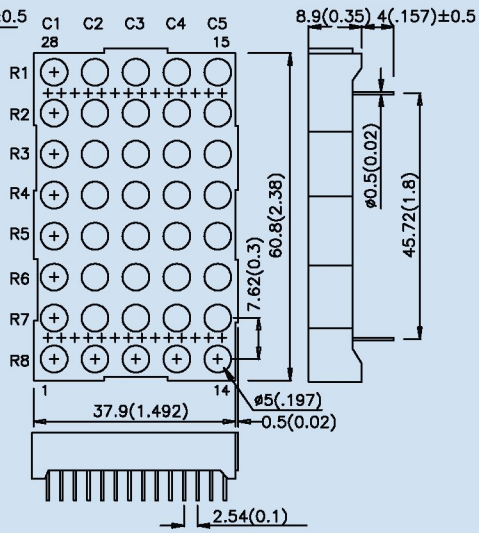
TA/TC24-11



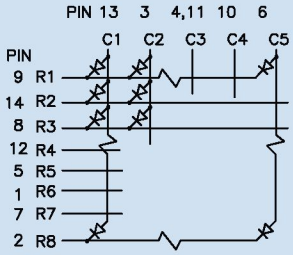
TBA/TBC24-11



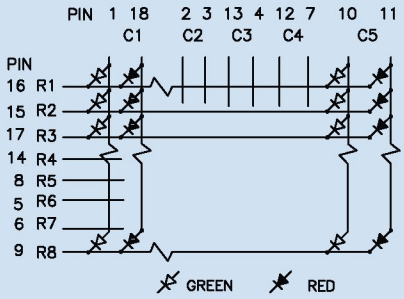
TBA/TBC24-22



TA24-11



TBA24-11



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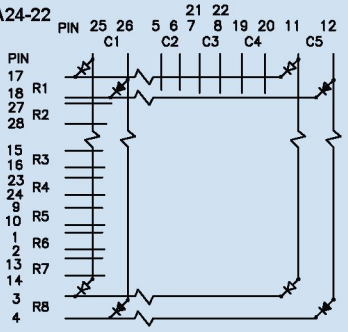
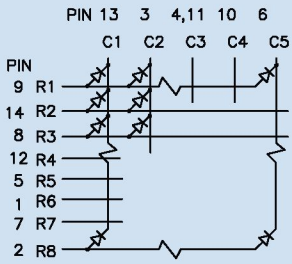
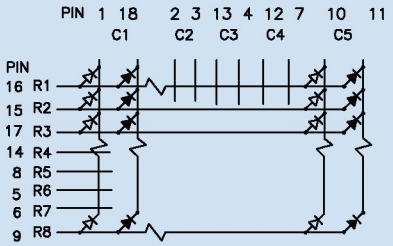


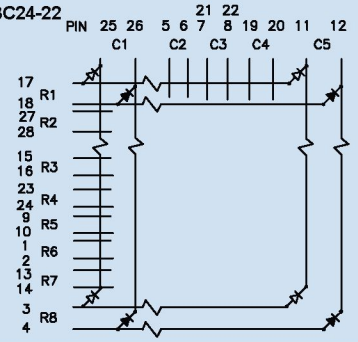
TC24-11



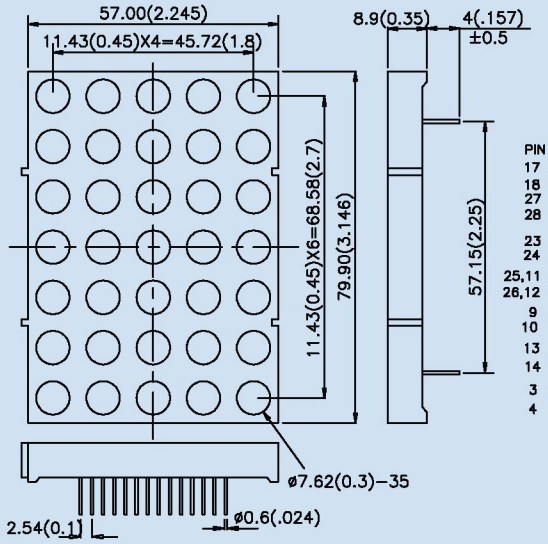
TBC24-11



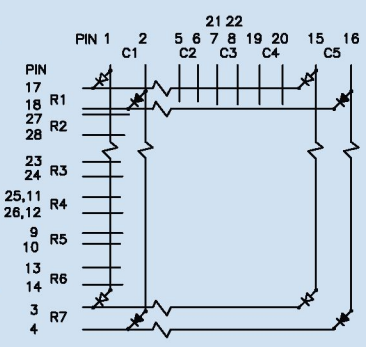
TBC24-22



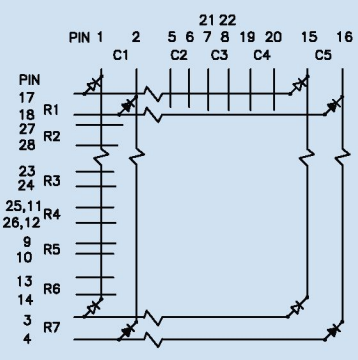
•TBA/TBC30-12 Series



TBA30-12



TBC30-12

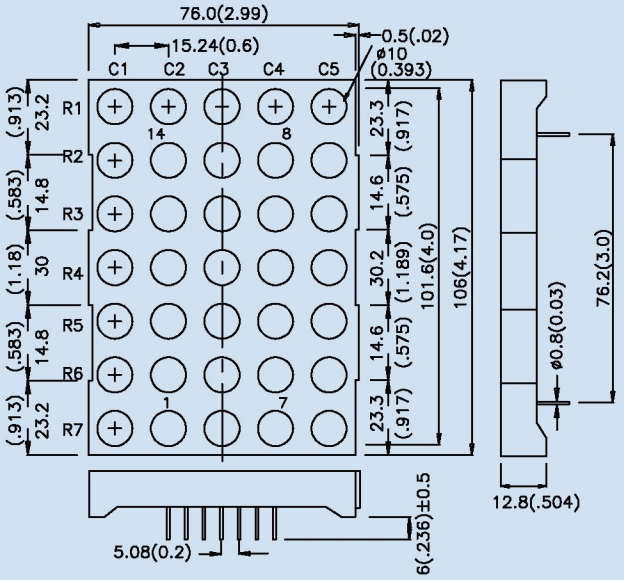


FOR 2 GREEN CHIP IN SERIES

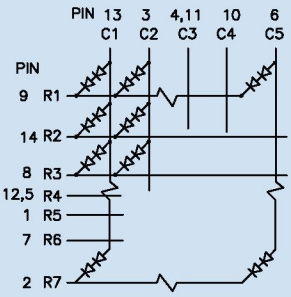
FOR 2 RED CHIP IN SERIES

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

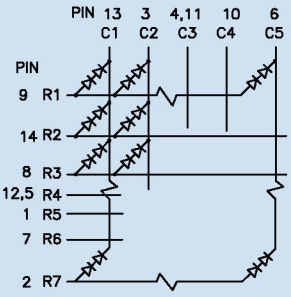
TA/TC40-11



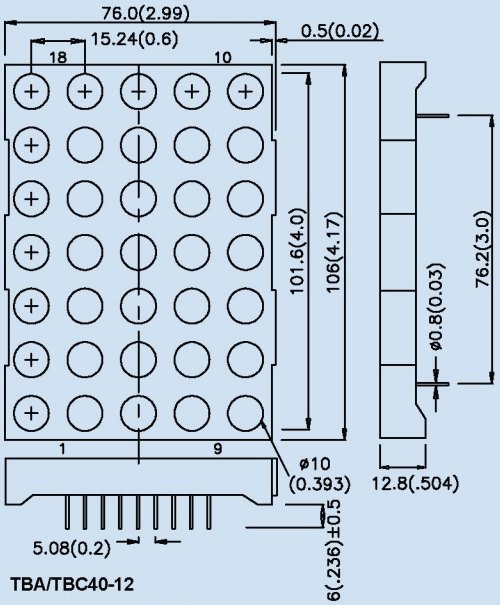
TA40-11



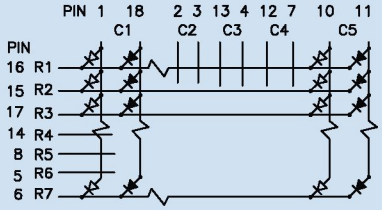
TC40-11



TBA/TBC40-11



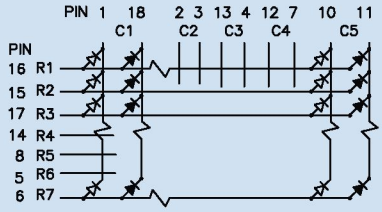
TBA40-11



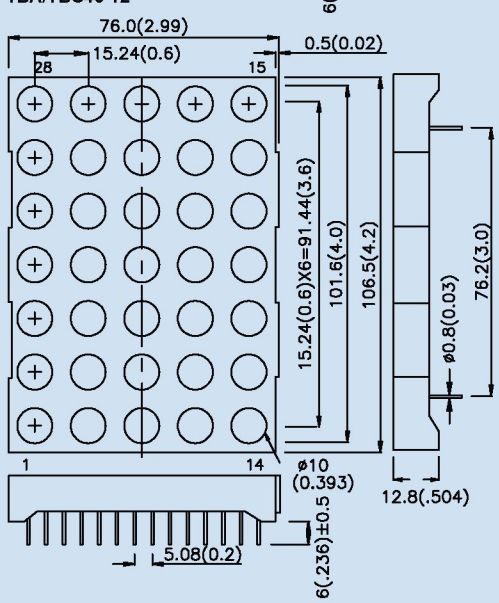
FOR 2 RED CHIPS

FOR 2 GREEN CHIPS

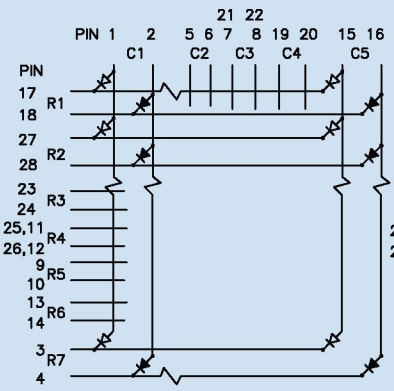
TBC40-11



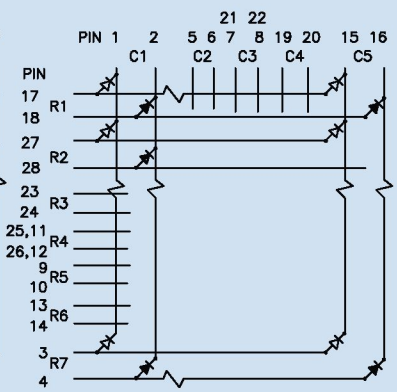
TBA/TBC40-12



TBA40-12



TBC40-12



NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

TECHNICAL DATA

Absolute maximum ratings (TA=25°C)		H Bright Red (GaP)	G+SG Green Super Bright Green (GaP)	PG Pure Green (GaP)	I+E Hi.Eff. Red Orange (GaAsP/GaP)	N Pure Orange (GaAsP/GaP)	Y Yellow (GaAsP/GaP)	SR+UR Super Bright Red (GaAlAs)	Unit
Reverse voltage	V_R	5	5	5	5	5	5	5	V
Forward current	I_F	25	25	25	30	30	30	30	mA
Forward current (Peak) 1/10 Duty Cycle, 0.1ms Pulse Width	i_{FS}	150	150	150	150	150	150	150	mA
Power dissipation	P_T	120	105	105	105	105	105	100	mW
LED LAMPS: Operating temperature	T_A	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	°C
Storage temperature	T_{STG}	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	°C
LED DISPLAYS: Operating temperature	T_A	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	°C
Storage temperature	T_{STG}	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	-40 ~ +85	- 40 ~ +85	°C

Operating characteristics (TA=25°C)		H Bright Red (GaP)	G+SG Green Super Bright Green (GaP)	PG Pure Green (GaP)	I+E Hi.Eff. Re Orange (GaAsP/GaP)	N Pure Orange (GaAsP/GaP)	Y Yellow (GaAsP/GaP)	SR+UR Super Bright Red (GaAlAs)	Unit
Forward voltage (typ.) I_F=20mA	V_F	2.0	2.2	2.25	2.0	2.0	2.1	1.85	V
Forward voltage (max.) I_F=20mA	V_F	2.5	2.5	2.6	2.5	2.6	2.5	2.5	V
Reverse current V_R=5V	I_R	10	10	10	10	10	10	10	uA
Wavelength at peak emission I_F=20mA	λ_P	**700**	**565**	**555**	**625**	**610**	**590**	**660**	nm
Spectral line half-width I_F=20mA	Δ_λ	45	30	30	45	35	35	20	nm
Capacitance V_F=0V, f=1MHz	C	40	45	45	12	15	10	95	pF

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

Operating characteristics (TA=25°C)		H Bright Red (GaP)	G+SG Green Super Bright Green (GaP)	PG Pure Green (GaP)	I+E Hi.Eff. Re Orange (GaAsP/GaP)	N Pure Orange (GaAsP/GaP)	Y Yellow (GaAsP/GaP)	SR+UR Super Bright Red (GaAlAs)	Unit
Forward voltage (typ.) I_F=20mA	V_F	2.0	2.2	2.25	2.0	2.0	2.1	1.85	V
Forward voltage (max.) I_F=20mA	V_F	2.5	2.5	2.6	2.5	2.6	2.5	2.5	V
Reverse current V_R=5V	I_R	10	10	10	10	10	10	10	uA
Wavelength at peak emission I_F=20mA	λ_P	700	565	555	625	610	590	660	nm
Spectral line half-width I_F=20mA	Δ_λ	45	30	30	45	35	35	20	nm
Capacitance V_F=0V, f=1MHz	C	40	45	45	12	15	10	95	pF

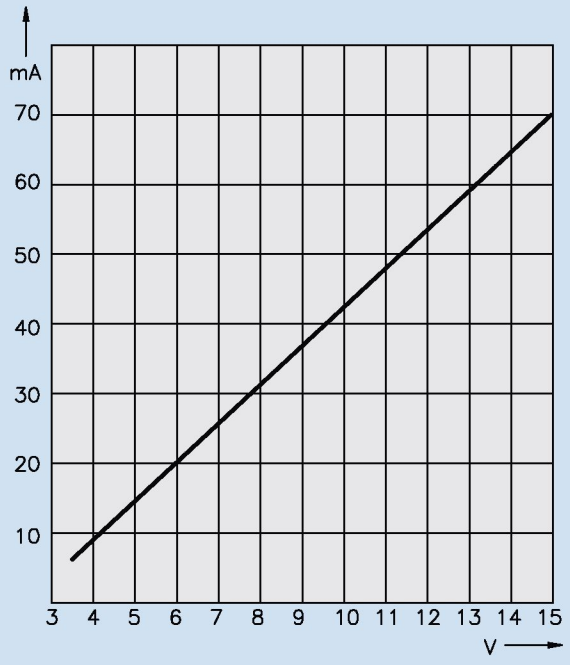
Absolute maximum ratings (TA=25°C)		**SUR Hyper Red** (InGaAlP)	**SUR-E Hyper Red** (InGaAlP)	**SE Super Bright Orange** (InGaAlP)	**SE-E Hyper Orange** (InGaAlP)	**SY Super Bright Yellow** (InGaAlP)	**MB Blue** (GaN)	Unit
Reverse voltage	V_R	5	5	5	5	5	5	V
Forward current	I_F	50	40	30	40	30	30	mA
Forward current (Peak) 1/10 Duty Cycle, 0.1ms Pulse Width	i_{FS}	150	120	150	120	150	200	mA
Power dissipation	P_T	170	150	75	150	125	105	mW
LED LAMPS: Operating temperature	T_A	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	°C
Storage temperature	T_{STG}	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	°C
LED DISPLAYS: Operating temperature	T_A	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	°C
Storage temperature	T_{STG}	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	°C

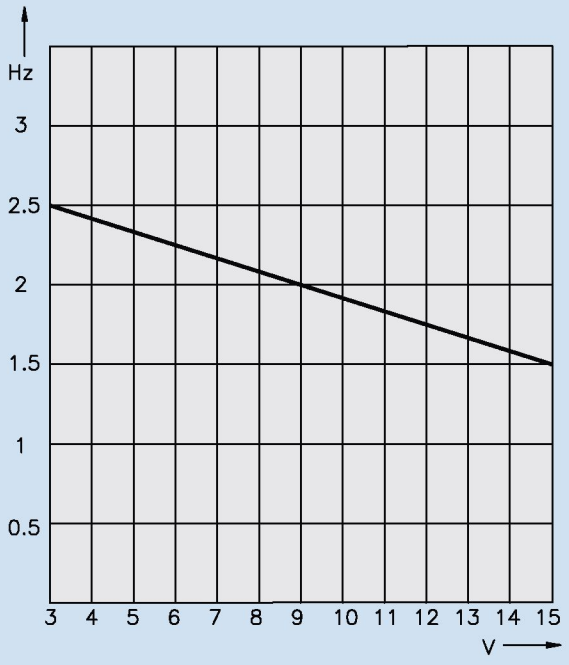
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

Kingbright® TECHNICAL DATA FOR FLASHING LED LAMPS

Absolute maximum ratings (TA=25°C)		H Bright Red (GaP)	I Hi. Eff. Red (GaAsP/GaP)	G+SG Green Super Bright Green (GaP)	Y Yellow (GaAsP/GaP)	SR Super Bright Red (GaAlAs)	Unit
Reverse voltage	V_R	0,5	0,5	0,5	0,5	0,5	V
Forward current	I_F	38-56	38-56	38-56	38-56	38-56	mA
Total power dissipation	P_T	200	200	200	200	200	mW
Operating temperature	T_A	- 40 ~ +70	- 40 ~ +70	- 40 ~ +70	- 40 ~ +70	- 40 ~ +70	°C
Storage temperature	T_{STG}	- 50 ~ +100	- 50 ~ +100	- 50 ~ +100	- 50 ~ +100	- 50 ~ +100	°C

Operating characteristics (TA=25°C)		H Bright Red (GaP)	I Hi. Eff. Red (GaAsP/GaP)	G+SG Green Super Bright Green (GaP)	Y Yellow (GaAsP/GaP)	SR Super Bright Red (GaAlAs)	Unit
Forward voltage (min.) I_F=6mA	V_F	3,5	3,5	3,5	3,5	3,5	V
Forward voltage (typ.) I_F=38-56mA	V_F	9-12	9-12	9-12	9-12	9-12	V
Supply current	I_{SON}	6-70	6-70	6-70	6-70	6-70	mA
Blink frequency	f	2,5-1,5	2,5-1,5	2,5-1,5	2,5-1,5	2,5-1,5	Hz
Wavelength at peak emission I_F=20mA	λ_P	**700**	**625**	**565**	**590**	**660**	nm
Spectral line half-width I_F=20mA	Δ_λ	45	45	30	35	20	nm





NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

TECHNICAL DATA 5V/12V WITH INTERNAL RESISTANCE

Kingbright®

Absolute maximum ratings (TA=25°C)		I+E Hi. Eff. Red Orange (GaAsP/GaP)	G+SG Green Super Bright Green (GaP)	Y Yellow (GaAsP/GaP)	SR Super Bright Red (GaAlAs)	Unit
Reverse voltage	V_R	5	5	5	5	V
Forward current (peak) 1/10 Duty Cycle, 0.1ms Pulse Width	i_{FS}	150	150	150	200	mA
Derating linear from		0,7	0,7	0,7	0,35	mA
Power dissipation 50°C	P_T	310	310	310	300	mW
Operating temperature	T_A	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	°C
Storage temperature	T_{STG}	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	°C

Operating characteristics		I+E Hi. Eff. Red Orange (GaAsP/GaP)	G+SG Green Super Bright Green (GaP)	Y Yellow (GaAsP/GaP)	SR Super Bright Red (GaAlAs)	Unit
Forward current (typ.) V=5V	I_F	12	12	12	13	mA
V=12V	I_F	11	11	12	10	mA
Reverse current V_R=5V	I_R	10	10	10	10	uA
Wavelength at peak emission I_F=20mA	λ_P	**625**	**565**	**590**	**660**	nm
Spectral line half-width I_F=20mA	Δ_λ	45	30	35	20	nm
Lead Solder Temperature (1,6 mm From Body) 260°C For 5 Seconds						

TECHNICAL DATA FOR LOW CURRENT

Kingbright®

Absolute maximum ratings (TA=25°C)		I+E Hi. Eff. Red (GaAsP/GaP)	G+SG Green Super Bright Green (GaP)	Y Yellow (GaAsP/GaP)	SR Super Bright Red (GaAlAs)	Unit
Reverse voltage	V_R	5	5	5	5	V
Forward current	I_F	30	25	30	30	mA
Forward current (peak) 1/10 Duty Cycle, 0.1ms Pulse Width	i_{FS}	150	150	150	150	mA
Power dissipation	P_T	105	105	105	100	mW
LED LAMPS: Operating temperature	T_A	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	°C
Storage temperature	T_{STG}	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	°C
LED DISPLAYS: Operating temperature	T_A	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	°C
Storage temperature	T_{STG}	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	- 40 ~ +85	°C

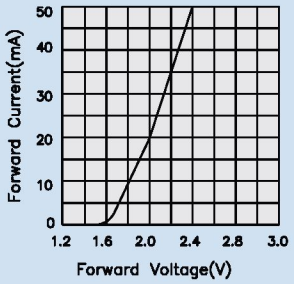
Operating characteristics		I+E Hi. Eff. Red Orange (GaAsP/GaP)	G+SG Green Super Bright Green (GaP)	Y Yellow (GaAsP/GaP)	SR Super Bright Red (GaAlAs)	Unit
Forward voltage (typ.) I_F2mA	V_F	1,7	1,9	1,8	1,65	V
Forward voltage (max.) I_F2mA	V_F	2,0	2,2	2,1	1,95	V
Reverse current V_R=5V	I_R	10	10	10	10	uA
Wavelength at peak emission I_F=20mA	λ_P	**625**	**565**	**590**	**660**	nm
Spectral line half-width I_F=20mA	Δ_λ	45	30	35	20	nm
Capacitance V_F=0V, f=1MHz	C	12	45	10	95	nm

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

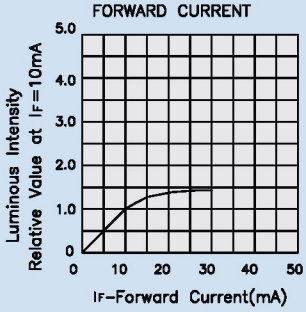
TECHNICAL DATA

Bright Red | H : GaP

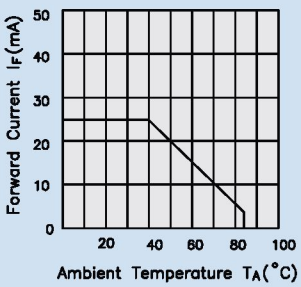
FORWARD CURRENT Vs. FORWARD VOLTAGE



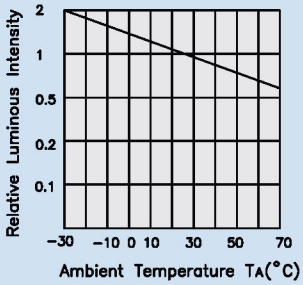
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

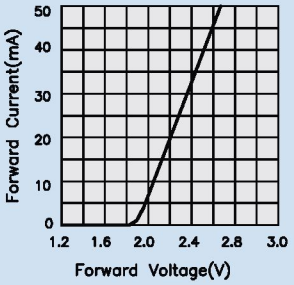


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

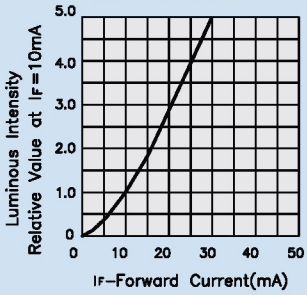


Green + Super Bright Green | G + SG : GaP

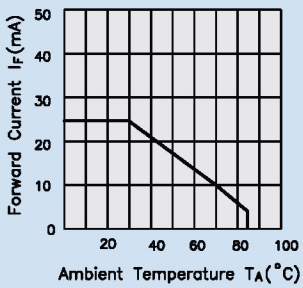
FORDWARD CURRENT Vs. FORWARD VOLTAGE



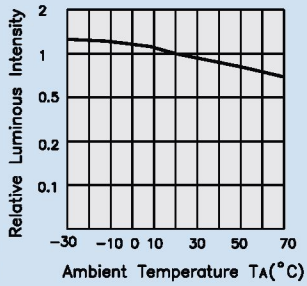
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

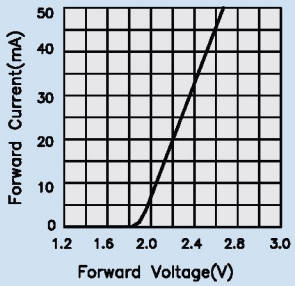


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

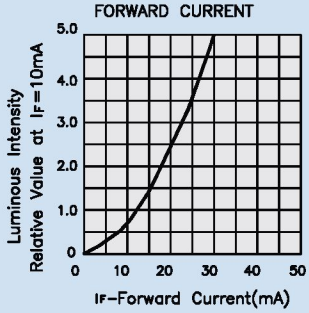


Pure Green | PG : GaP

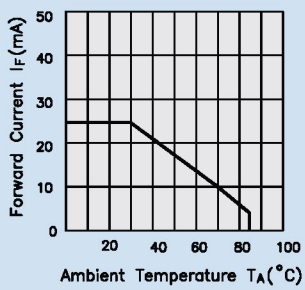
FORWARD CURRENT Vs. FORWARD VOLTAGE



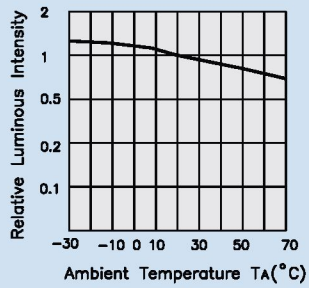
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

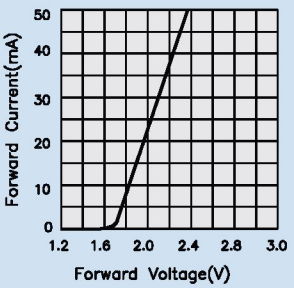


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

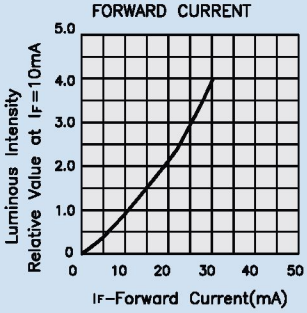


High Efficiency Red + Orange | I + E : GaAsP/GaP

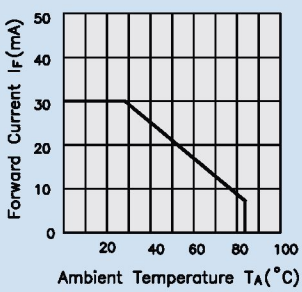
FORDWARD CURRENT Vs. FORWARD VOLTAGE



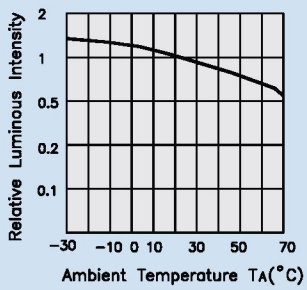
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



NOTES:
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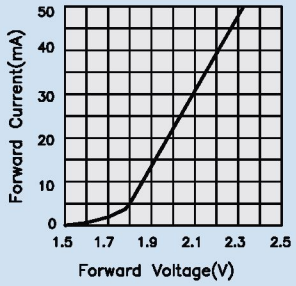
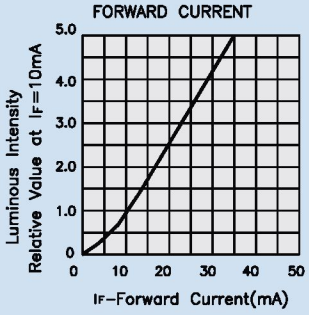
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

Pure Orange | N : GaAsP/GaP

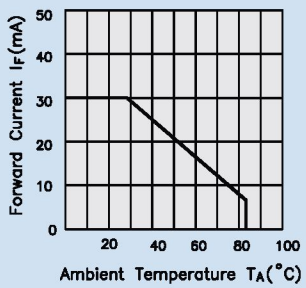
FORWARD CURRENT Vs. FORWARD VOLTAGE



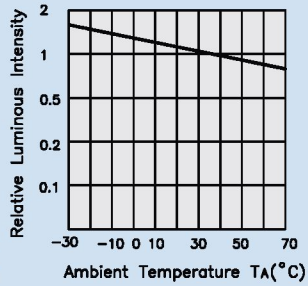
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

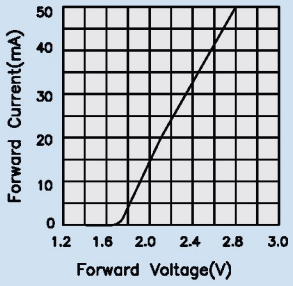


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

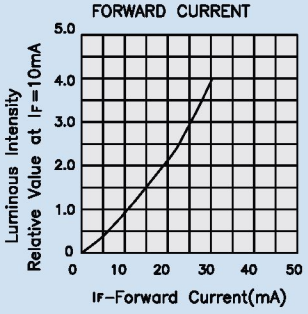


Yellow | Y : GaAsP/GaP

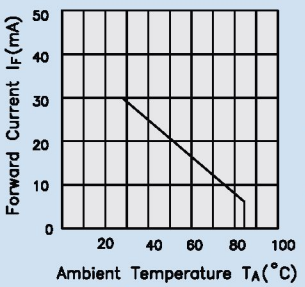
FORWARD CURRENT Vs. FORWARD VOLTAGE



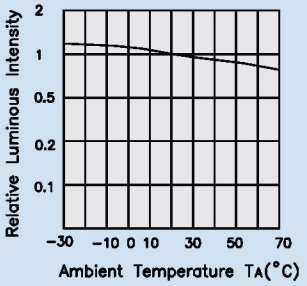
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

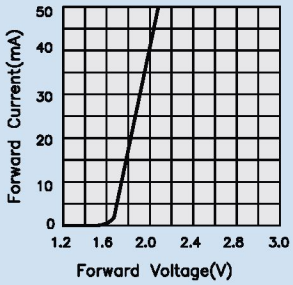


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

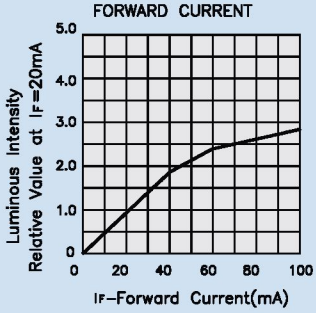


Super Bright Red | SR+UR : GaAlAs

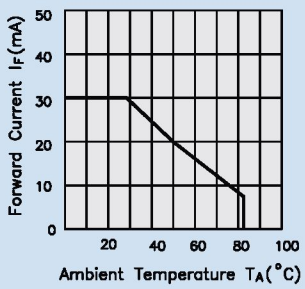
FORDWARD CURRENT Vs. FORWARD VOLTAGE



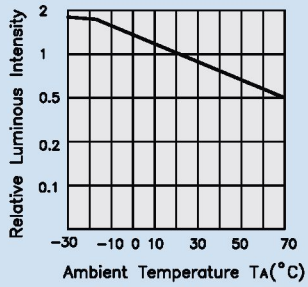
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

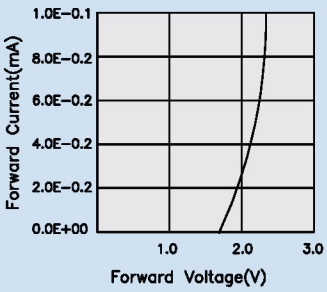


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

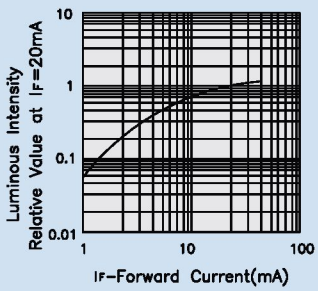


Hyper Red | SUR : InGaAlP

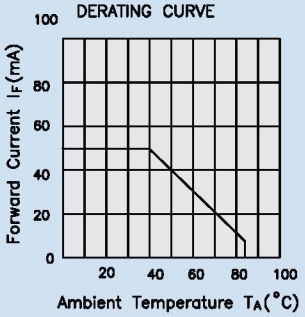
FORWARD CURRENT Vs. FORWARD VOLTAGE



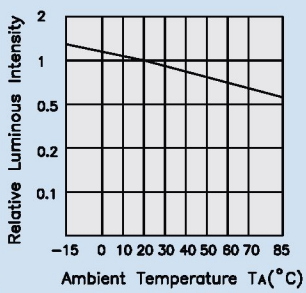
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE



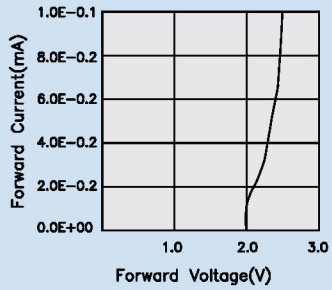
LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



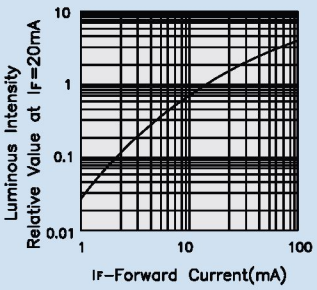
NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

Hyper Red | SUR-E : InGaAlP

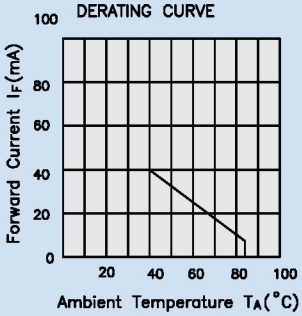
FORWARD CURRENT Vs. FORWARD VOLTAGE



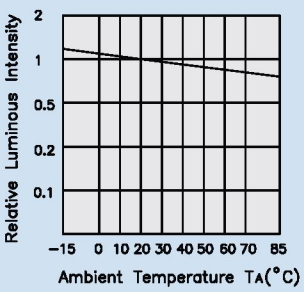
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

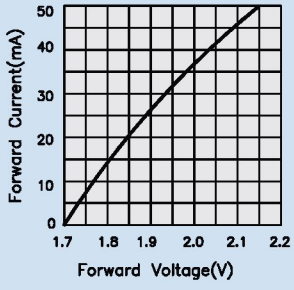


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

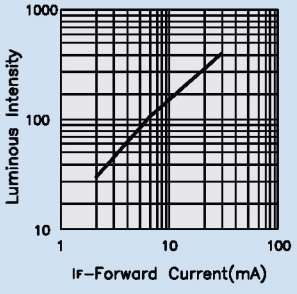


Super Bright Orange | SE : InGaAlP

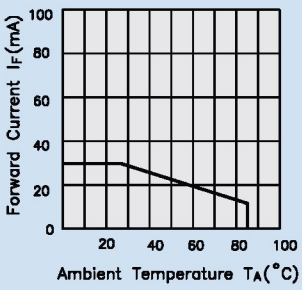
FORWARD CURRENT Vs. FORWARD VOLTAGE



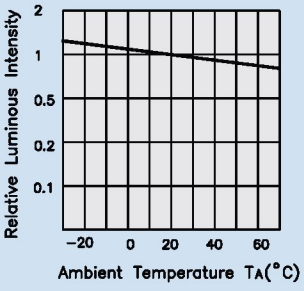
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

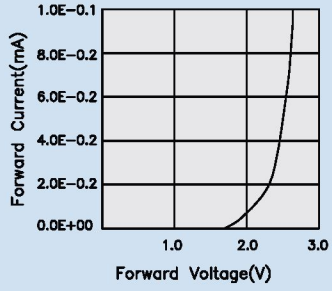


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

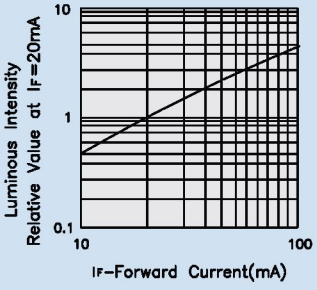


Hyper Orange | SE-E : InGaAlP

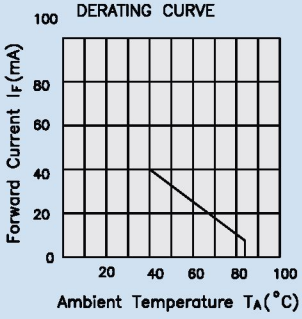
FORWARD CURRENT Vs. FORWARD VOLTAGE



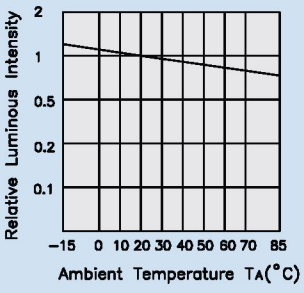
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

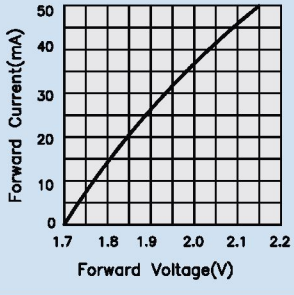


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

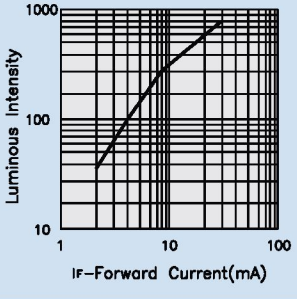


Super Bright Yellow | SY : InGaAlP

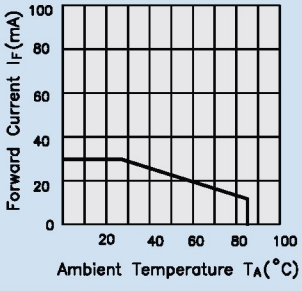
FORWARD CURRENT Vs. FORWARD VOLTAGE



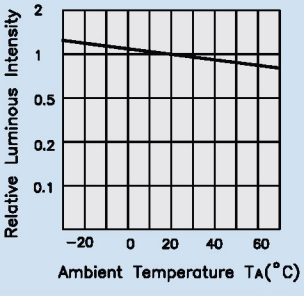
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

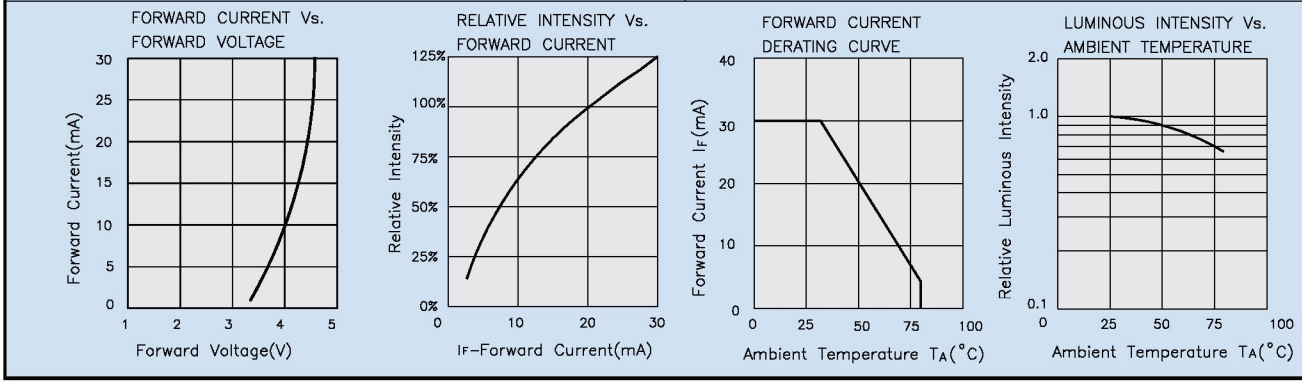


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

Blue | **MB : GaN**



SELECTION CODE FOR STANDARD LEDS

GROUP	Light intensity in mcd(10mA)		GROUP	Light intensity in mcd(10mA)	
	min.	max.		min.	max.
F	0.1	0.2	P	5.0	8.0
G	0.2	0.32	Q	8.0	12.5
H	0.32	0.5	R	12.5	20.0
I	0.5	0.8	S	20.0	32.0
K	0.8	1.25	T	32.0	50.0
L	1.25	2.0	U	50.0	80.0
M	2.0	3.2	V	80.0	125.0
N	3.2	5	W	125.0	200.0

SELECTION CODE FOR DISPLAYS

GROUP	Light intensity in ucd(10mA)		GROUP	Light intensity in ucd(10mA)	
	min.	max.		min.	max.
C	70	140	PA	14000	17500
D	140	240	PB	17500	21000
E	240	360	QA	21000	23000
F	360	560	QB	23000	25000
G	560	900	QC	25000	27000
H	900	1400	QD	27000	29000
I	1400	2200	QE	29000	31000
K	2200	3600	RA	31000	36000
LA	3600	4600	RB	36000	41000
LB	4600	5600	RC	41000	52000
MA	5600	7300	SA	52000	64000
MB	7300	9000	SB	64000	76000
NA	9000	10250	SC	76000	88000
NB	10250	11500	TA	88000	108000
NC	11500	12750	TB	108000	130000
ND	12750	14000	TC	130000	150000

SELECTION CODE FOR SUPER BRIGHT LEDS

GROUP	Light intensity in mcd(20mA)		GROUP	Light intensity in mcd(20mA)	
	min.	max.		min.	max.
A	2.0	3.0	N	100.0	200.0
B	3.2	5.0	P	200.0	300.0
C	5.0	8.0	Q	300.0	400.0
D	8.0	12.5	R	400.0	500.0
E	12.5	20.0	S	500.0	700.0
F	20.0	40.0	T	700.0	1000.0
G	40.0	50.0	U	1000.0	1300.0
H	50.0	60.0	V	1300.0	1600.0
J	60.0	70.0	W	1600.0	2000.0
K	70.0	80.0	X	2000.0	2500.0
L	80.0	90.0	Y	2500.0	3000.0
M	90.0	100.0	Z	3000.0	3500.0

COLOR CODE FOR LEDS + DISPLAYS

GROUP	DOM. WAVELENGTH(nm)			
	GREEN		YELLOW	
	min.	max.	min.	max.
0	556	559		
1	559	561	581	584
2	561	563	584	586
3	563	565	586	588
4	565	567	588	590
5	567	569	590	592
6	569	571	592	594
7	571	573	594	597
8	573	575	597	600

SOLDERING INSTRUCTIONS

TYPES	DIP AND WAVE SOLDERING			IRON SOLDERING (WITH 1.5mm IRON TIP)		
	TEMPERATURE OF THE SOLDERING BATH	MAXIMUM SOLDERING TIME	DISTANCE FROM SOLDER JOINT TO CASE	TEMPERATURE OF SOLDERING IRON	MAXIMUM SOLDERING TIME	DISTANCE FROM SOLDER JOINT TO CASE
LEDS	≤260°C	3s	>2mm	≤260°C	3s	>2mm
	≤260°C	5s	>4mm	≤260°C	5s	>4mm
DISPLAYS	≤260°C	3s	>2mm	≤260°C	3s	>2mm

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0,25 mm (0.01") unless otherwise noted

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