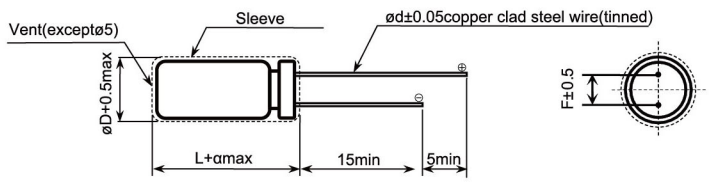
105℃ Standard Capacitors , Series KRM.

Guaranteed 2000 hours at 105℃

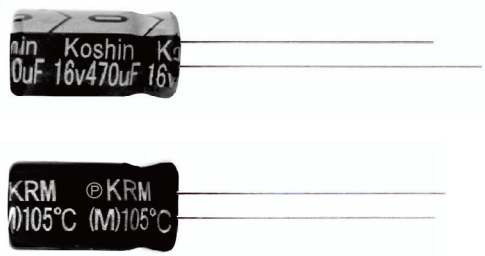
RoHS

Outline Drawing Unit: mm



øD	5	6.3	8	10	12.5	16	18	22	25
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0	10.0
ød	0.5	0.5	0.6	0.6	0.6	0.8	0.8	0.8/1.0	1.0
α	1.5			1.5 for L16 max. 2.0 for L20 min.					

Photo



Marking color: white print on black sleeve

Specifications

No.	Item	Performance											
1	Temperature range(℃)	-55 to +105(6.3V～100V)						-40 to +105(160V～500V)					
2	Leakage current (μA)	Less than 0.01CV or 3 whichever is larger(after one minutes)						Less than 0.03CV or 3 whichever is larger (after one minutes)					
		C: Rated Capacitance (μ F). V: Rated voltage (V) 20℃											
3	Capacitance tolerance (%)	±20 (20˚C ,120Hz)											
4	Tangent of the loss angle (Tan δ)	Rated voltage (V)	6.3	10	16	25	35	50	63	100	160-250	350-500	20˚C 120Hz
		Tanδ(max)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.15	0.15	
		0.02 is added to each 1000uF increase over 1000uF.											
5	Low temperature characteristics	Rated voltage (V)		6.3	10	16	25	35	50	63	100	160-250	350-500	120Hz
		Impedance ratio(max)	$Z_{(-25°C)}/Z_{(+20°C)}$	4	3	2	2	2	2	2	2	3	3	
			$Z_{(-40°C)}/Z_{(+20°C)}$	8	6	4	3	3	3	3	3	8	6	
6	Endurance (105℃) (Applied ripple current)	Test time		2000hours									
		Leakage current		The initial specified value or less									
		Percentage of capacitance change		Within ±20% of initial value									
		Tangent of the loss angle		200% or less of the initial specified value									
7	Shelf life (105℃)	Test time		1000hours									
		Leakage current		The initial specified value or less									
		Percentage of capacitance change		Within ±20% of initial value									
		Tangent of the loss angle		200% or less of the initial specified value									
8	Applicable standards	JIS–C–5101–4(IEC60384)											

Coefficient of Frequency for Ripple Current

Rated voltage (V)	Frequency (Hz) / Capacitance(μ F)	50•60	120	1K	10K	100K
6.3 to 100	CAP≤10	0.80	1.00	1.30	1.65	1.70
	10<CAP≤100	0.80	1.00	1.23	1.48	1.53
	100<CAP≤1000	0.80	1.00	1.16	1.35	1.38
	1000<CAP	0.80	1.00	1.11	1.25	1.28
160 to 500	0.47 to 330	0.80	1.00	1.30	1.40	1.60

Coefficient of Temperature for Ripple Current

Temperature (℃) / Rated voltage (V)	70 or less	85	105
6.3 to 100	2.00	1.70	1.00
160 to 500	1.80	1.40	1.00

Koshin

KRM Miniature Aluminum Electrolytic Capacitors

DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension:ΦDXL(mm)
Ripple Current: mA/rms at 120Hz,105℃

V.DC / Contents μF	6.3V				10V				16V				25V			
	ΦDXL	mA	*ΦDXL	mA	ΦDXL	mA	*ΦDXL	mA	ΦDXL	mA	*ΦDXL	mA	ΦDXL	mA	*ΦDXL	mA
4.7													5X11	26		
10									5X11	35			5X11	43		
22					5X11	49			5X11	58			5X11	62		
33	5X11	54			5X11	60			5X11	71			5X11	76		
47	5X11	65			5X11	76			5X11	85			5X11	97		
100	5X11	95			5X11	105			6.3X11	133	5X11	110	6.3X11	142		
220	6.3X11	160	5X11	140	6.3X11	175			8X11.5	215	6.3X11	190	8X11.5	236		
330	8X11.5	195	6.3X11	190	8X11.5	245	6.3X11	200	8X11.5	270			10X12.5	335	8X11.5	310
470	8X11.5	270	6.3X11	230	8X11.5	290			10X12.5	370	8X11.5	310	10X16	440	10X12.5	380
1000	10X12.5	460	8X11.5	380	10X16	550	10X12.5	460	10X20	640	10X16	560	12.5X20	770	10X20	680
2200									10X25	900						
	10X20	810			12.5X20	860	10X20	760	12.5X25	1000	12.5X20	920	16X25	1170	12.5X25	1110
3300	12.5X20	960	10X20	840	12.5X20	1100			16X25	1300	12.5X25	1170	16X31.5	1460	16X25	1440
4700	16X25	1330	12.5X20	1090	16X25	1400	12.5X25	1260	16X31.5	1600	16X25	1480	18X35.5	1780	16X31.5	1710
6800	16X25	1640	12.5X25	1460	16X315	1880	16X25	1690	18X35.5	2170	16X31.5	1930	18X40	2280	18X35.5	2160
10000	16X31.5	2200	16X25	1990	18X35.5	2560	16X35.5	2400	18X40	2780	18X35.5	2640				
22000	18X40	3270														

V.DC / Contents μF	35V				50V				63V				100V			
	ΦDXL	mA	*ΦDXL	mA	ΦDXL	mA	*ΦDXL	mA	ΦD×L	mA	*ΦDXL	mA	ΦDXL	mA	*ΦDXL	mA
0.1					5X11	3.2			5X11	3.5			5X11	4		
0.22					5X11	4.9			5X11	5.1			5X11	6		
0.33					5X11	6			5X11	7.5			5X11	8		
0.47					5X11	7.1			5X11	9			5X11	9		
1					5X11	13			5X11	15			5X11	15		
2.2					5X11	20			5X11	30			5X11	30		
3.3					5X11	30			5X11	31			5X11	31		
4.7	5X11	30			5X11	33			5X11	36			6.3X11	40		
10	5X11	46			5X11	50			5X11	54			8X11.5	66	6.3X11	54
22	5X11	71			5X11	78			6.3X11	86			8X11.5	99	6.3X11	93
33	6.3X11	90	5X11	75	6.3X11	96	5X11	90	8X11.5	114	6.3X11	100	10X12.5	148	8X11.5	130
47	6.3X11	110	5X11	90	6.3X11	120			8X11.5	141	6.3X11	130	10X16	180	10X12.5	165
100	8X11.5	180	6.3X11	150	8X11.5	188			10X12.5	235			12.5X20	320	10X20	265
220	10X12.5	300	8X11.5	270	10X12.5	440	10X16	300	10X20	450	10X16	335	16X25	570	12.5X25	440
330	10X16	400	10X12.5	350	10X20	460	10X16	410	12.5X20	540	10X20	510	16X31.5	700	16X25	540
470	10X20	520	10X16	460	12.5X25	610	10X20	530	12.5X25	720	12.5X20	640	18X35.5	880	16X31.5	715
1000	12.5X25	920	12.5X20	810	16X25	1080	12.5X25	950	16X31.5	1210	16X25	930	22X40	1760	18X40	985
2200	16X31.5	1340	16X25	1260	18X35.5	2120	16X35.5	1470	18X40	2340						
3300	18X35.5	1650	16X35.5	1610	22X40	2290	18X35.5	1770	22X40	2510						
4700	18X40	1920	18X35.5	1900	25X40	2610	22X40	2340	25X40	3000						

DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension:ΦDXL(mm)
Ripple Current: mA/rms at 120Hz,105℃

V.DC / Contents / μF	160V				200V				250V			
	ΦDXL	Ma	*ΦDXL	mA	ΦDXL	mA	*ΦDXL	mA	ΦDXL	mA	*ΦDXL	mA
0.47	6.3X11	15	5X11	13	6.3X11	15	5X11	13	5X11	12		
1	6.3X11	24	5X11	20	6.3X11	24	5X11	20	6.3X11	17		
2.2	6.3X11	34	5X11	29	6.3X11	34	5X11	29	6.3X11	20	8X11.5	33
3.3	8X11.5	50	6.3X11	43	8X11.5	50	6.3X11	43	10X12.5	38	8X11.5	43
4.7	8X11.5	60	6.3X11	51	8X11.5	60	6.3X11	51	8X11.5	48	10X12.5	51
6.8	8X11.5	56	6.3X11	44	8X11.5	56			8X11.5	56	10X12.5	60
10	8X11.5	75	10X12.5	83	8X11.5	75	10X12.5	83	10X12.5	90	10X16	105
22	10X16	110	10X20	135	10X16	110	10X20	135	10X20	135	12.5X20	165
33	10X20	205	10X16	165	10X20	205	10X16	165	12.5X20	210	12.5X25	220
47	12.5X20	250	10X20	220	12.5X20	250	10X20	220	12.5X20	240	12.5X25	260
68	12.5X25	370	12.5X20	295	12.5X25	370	12.5X20	295	16X25	390	12.5X25	325
100	16X25	460	12.5X25	395	16X25	460	12.5X25	395	16X31.5	450	16X25	440
120	16X25	550			16X25	550			16X31.5	560	16X25	497
150	16X31.5	580	16X25	555	16X31.5	580	16X25	555	16X31.5	600		
180	16X31.5	660	16X25	608	16X31.5	660			18X31.5	680		
220	18X35.5	750	16X31.5	740	18X35.5	750	16X31.5	740				
330	18X35.5	940			18X35.5	940						
470	18X40	1000			18X40	1000						

V.DC / Contents / μF	350V				400V				450V			
	ΦDXL	mA	*ΦDXL	mA	ΦDXL	mA	*ΦDXL	mA	ΦDXL	mA	*ΦDXL	mA
0.47	6.3X11	12	8X11.5	12	6.3X11	12	8X11.5	12	6.3X11	12	8X11.5	12
1	6.3X11	20	8X11.5	22	6.3X11	20	8X11.5	22	6.3X11	20	8X11.5	22
2.2	6.3X11	63	8X11.5	57	6.3X11	63	8X11.5	57	6.3X11	28	8X11.5	32
3.3	8X11.5	86	10X12.5	78	8X11.5	86	10X12.5	78	10X12.5	42	8X11.5	39
4.7	8X11.5	55	10X12.5	66	8X11.5	55	10X12.5	66	10X12.5	52	8X11.5	46
6.8	10X12.5	80	10X12.5	80	8X11.5	60	10X12.5	80	10X12.5	80		
10	10X16	105	10X20	115	10X16	105	10X20	115	10X20	100	10X16	90
22	12.5X20	190	10X20	148	12.5X20	190	10X20	148	12.5X25	185	12.5X20	168
33	12.5X25	230	16X25	250	12.5X25	230	16X25	250	16X25	260	12.5X25	227
47	16X25	270	16X31.5	290	16X25	270	16X31.5	290	16X25	310	16X31.5	340
68	16X31.5	310	18X25	330	16X31.5	310	18X25	330	18X31.5	440	16X31.5	414
100	18X31.5	440	18X35.5	450	18X31.5	440	18X35.5	450	18X35.5	400	18X40	420
120	18X40	520			18X40	520			18X45	690	18X40	650

V.DC / Contents / μF	500V	
	ΦDXL	mA
2.2	8X11.5	63
3.3	10X12.5	78
4.7	10X16	103
10	10X20	174
22	12.5X25	282
33	16X25	438
47	18X31.5	500