



資料號碼 Document No.	版別 Ver.	1.0	頁 Page	1/9
----------------------	------------	-----	-----------	-----

VISES-9S-8R1B\6R3B Technical Data Sheet

Features

- AlN ceramic submount packaged LEDs provide ultra low thermal resistance
- Long life time
- Compact size

Applications

- Horticulture lighting
- Agricultural lighting
- Architecture lighting
- Decorative lighting
- Wall washer



Table of Contents

Characteristics	2
Relative Spectral Power Distribution	3
Typical Spatial Radiation Pattern	4
Typical Forward L-I Characteristics	4
Typical Forward I-V Characteristics	5
Mechanical Dimensions	6
Packing Information	7
Recommended Soldering Profile	9

RoHS Compliant



資料號碼 Document No.	版別 Ver.	1.0	頁 Page	2/9
----------------------	------------	-----	-----------	-----

Characteristics

Absolute Maximum Ratings (Tj=25°C)

Parameter	Rating
	Royal Blue / Blue / Red
DC Forward Current (mA)	700 mA
LED Junction Temperature	125°C
LED Operating Temperature	-40°C~125°C
Storage Temperature	-40°C~125°C
Soldering Temperature	Max. 260°C / Max. 10sec. (JEDEC 020c)
ESD Sensitivity	8,000V HBM (MIL-STD-883G)
Preconditioning	Acc. to JEDEC Level 2
Reverse Voltage	Not designed to be driven in reverse bias

General Characteristics at 350mA (Tj=25°C)

Color	Dominant Wavelength λ_d Peak Wavelength λ_p ⁽¹⁾ (nm)		$2\theta_{1/2}$	Temperature Coefficient of Vf (mV/°C)	Thermal Resistance Junction to Pad
	Min	Max		$\Delta V_f / \Delta T_j$	(°C/W) $R\theta_{j-p}$
Red	650	670	125	-1.8	1.1
Blue	460	470		-3	
Royal Blue	440	460		-3	

Notes:

- The peak/dominant wavelength is measured with an accuracy of ± 1 nm

Radiation Power and Forward Voltage at 350mA (Tj=25°C)

Part Name	Color	Radiation Power (mW)		VF	
		Min	Max	Min	Max
9090-9S-8R1B	Red x 8 Blue x 1	2,000	3,500	19	25
9090-9S-6R3B	Red x 6 Blue x 3	2,500	4,000	20	26

Note:

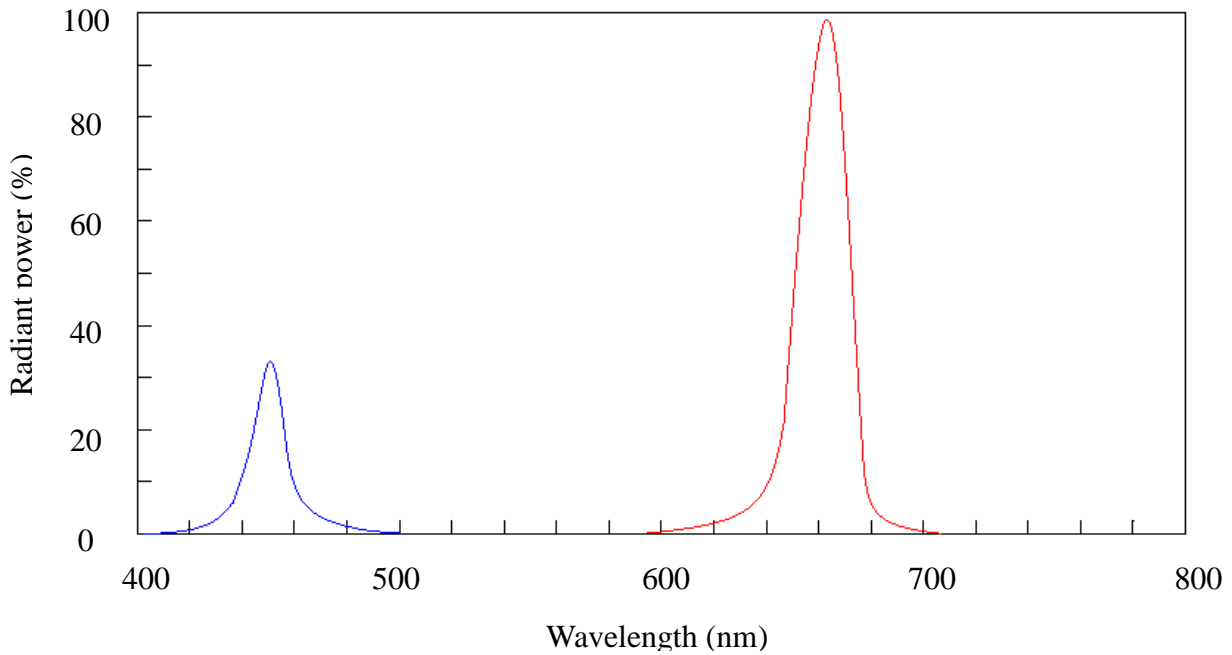
- Radiation power is measured with an accuracy of $\pm 10\%$
- The forward voltage is measured with an accuracy of $\pm 0.1V$



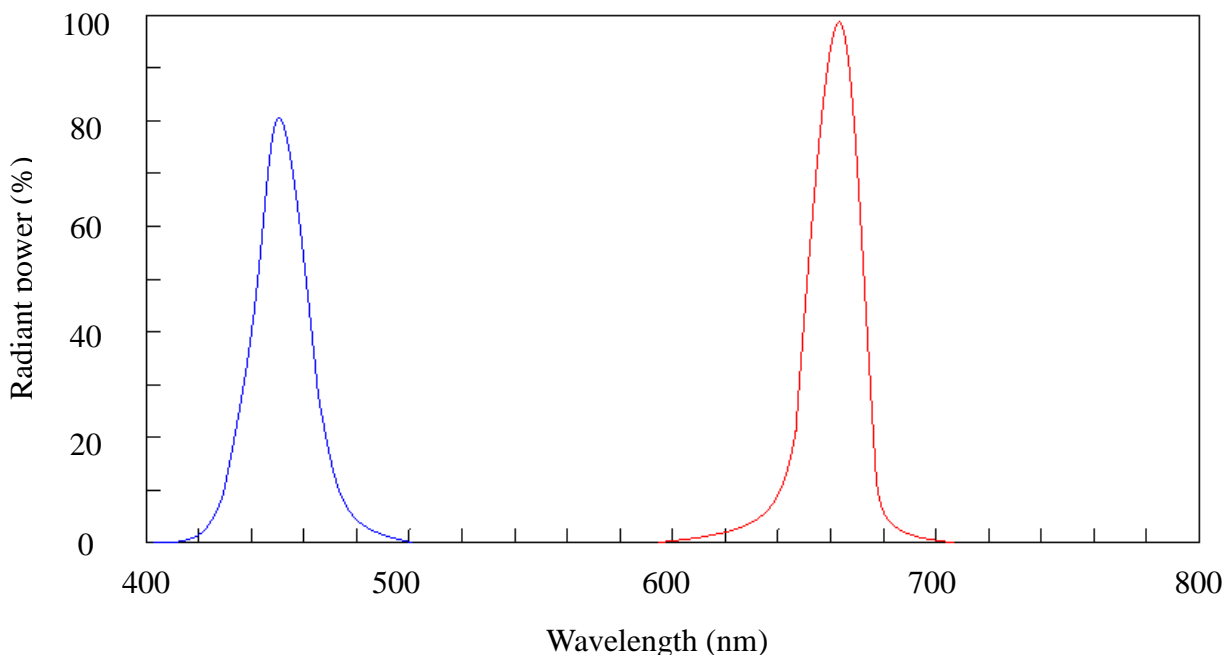
資料號碼 Document No.	版別 Ver.	1.0	頁 Page	3/9
----------------------	------------	-----	-----------	-----

Relative Spectral Power Distribution, T_j=25 °C

9090-9S-8R1B



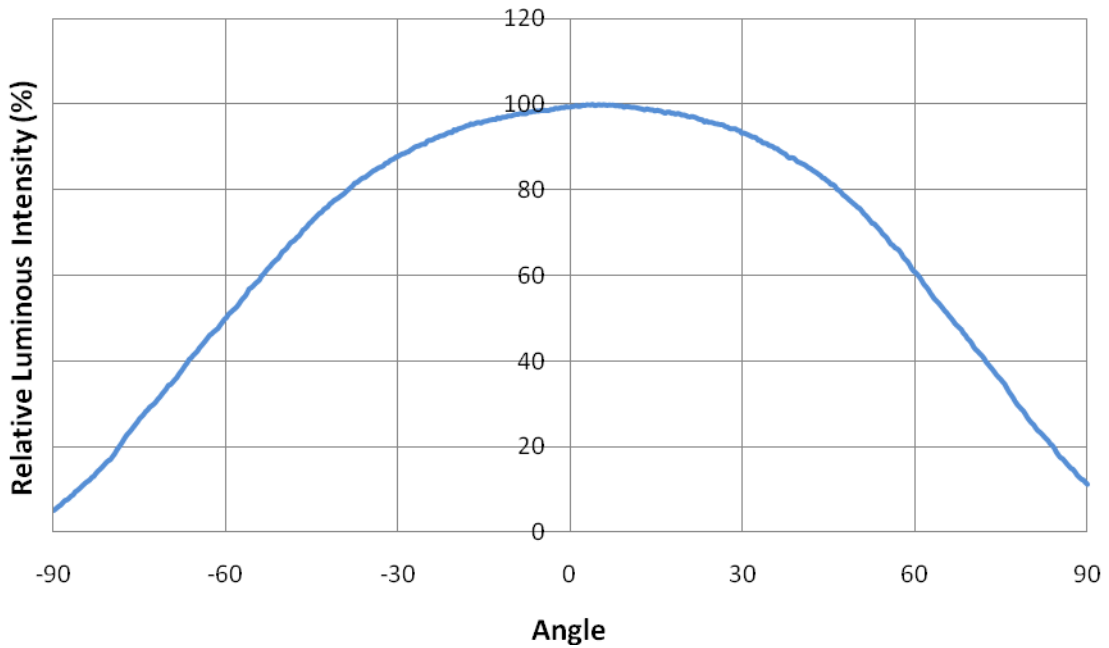
9090-9S-6R3B



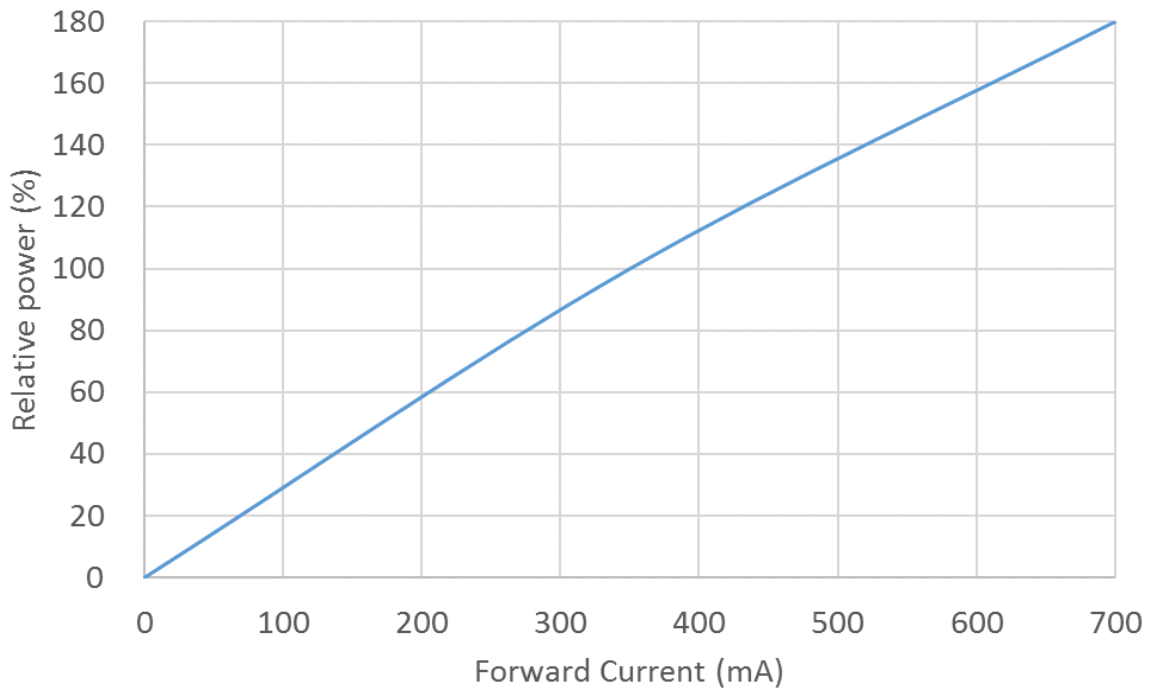


資料號碼 Document No.	版別 Ver.	1.0	頁 Page	4/9
----------------------	------------	-----	-----------	-----

Typical Spatial Radiation Pattern



Typical Forward L-I Characteristics

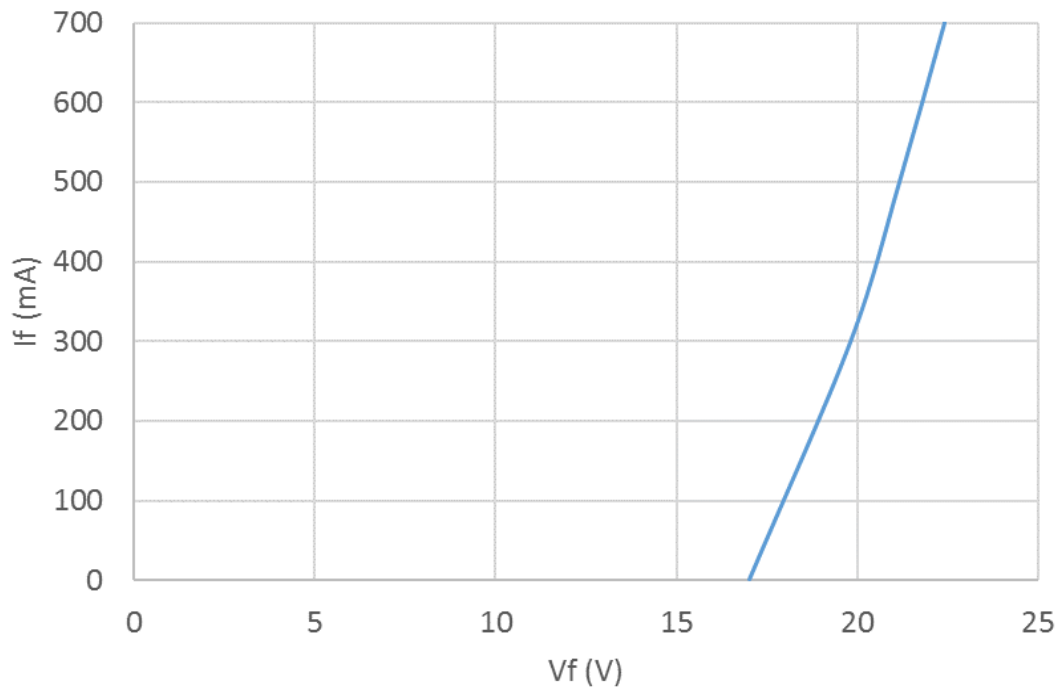




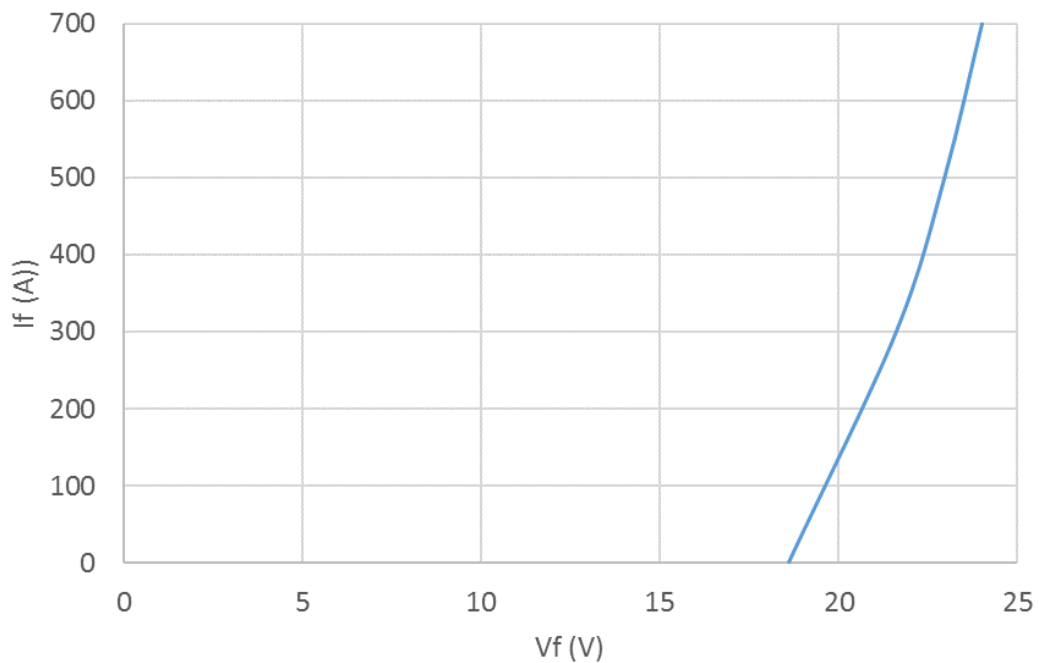
資料號碼 Document No.	版別 Ver.	1.0	頁 Page	5/9
----------------------	------------	-----	-----------	-----

Typical Forward I-V Characteristics

9090-9S-8R1B



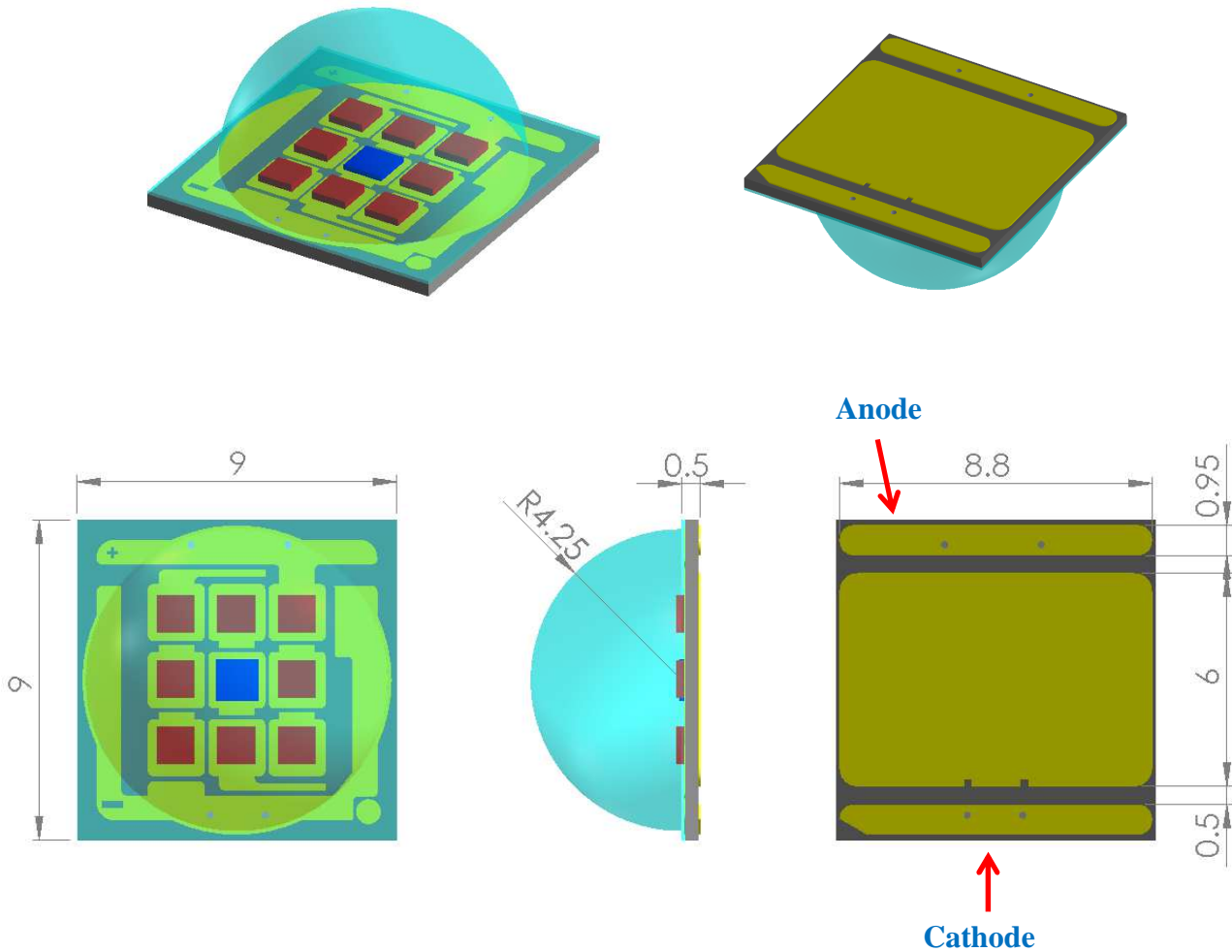
9090-9S-6R3B





資料號碼 Document No.	版別 Ver.	1.0	頁 Page	6/9
----------------------	------------	-----	-----------	-----

Mechanical Dimensions



Notes :

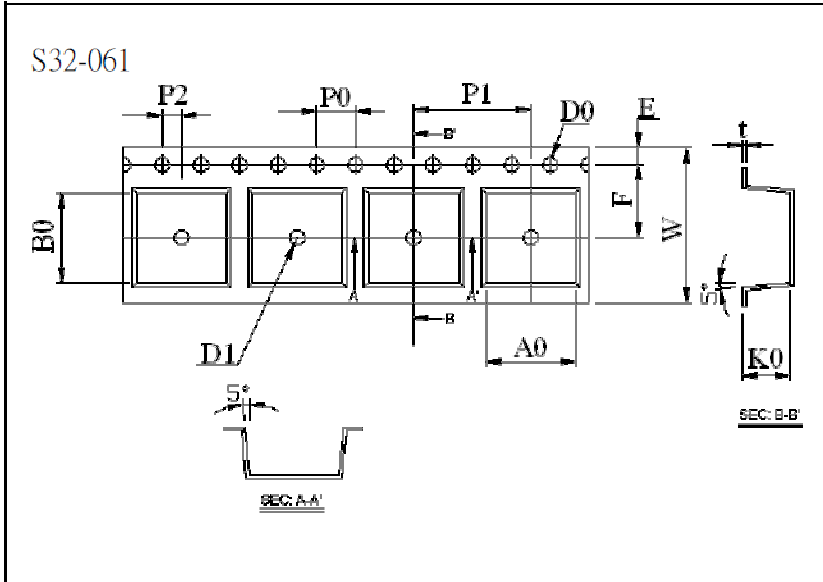
1. Drawing is not to scale
2. All dimensions are in millimeter
3. Dimensions are $\pm 0.13\text{mm}$ unless otherwise indicated



資料號碼 Document No.	版別 Ver.	1.0	頁 Page	7/9
----------------------	------------	-----	-----------	-----

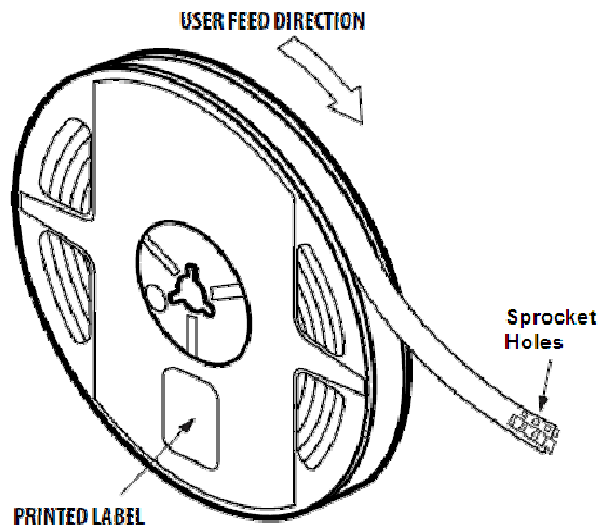
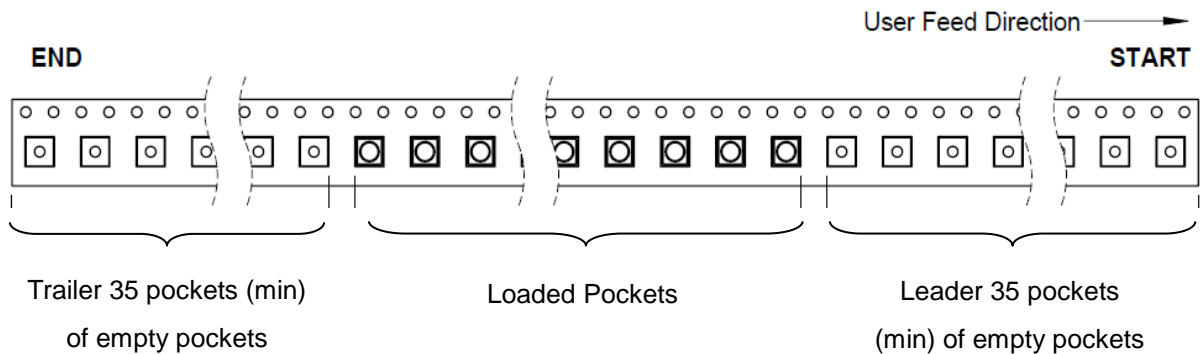
Packing Information

Dimensions. (Unit: mm)



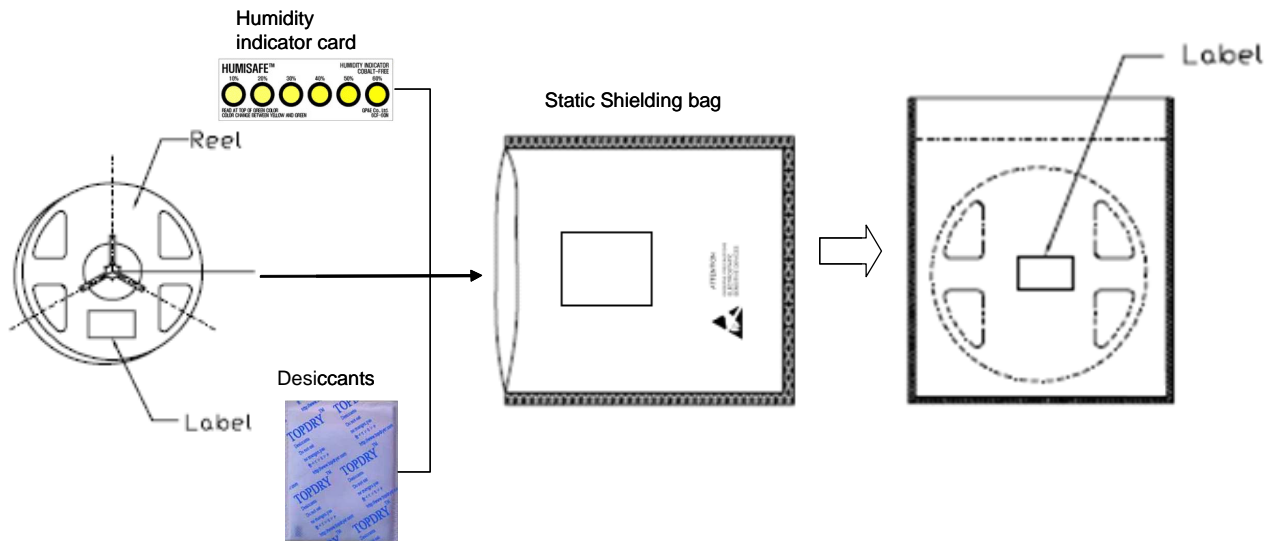
Item	Specification	Tol. (+/-)
W	16.00	± 0.30
E	1.75	± 0.10
F	7.50	± 0.10
D0	1.50	+0.10,-0
D1	1.50	+0.25,-0
P0	4.00	± 0.10
P1	12.00	± 0.10
P2	2.00	± 0.10
P0 x 10	40.00	± 0.20

t	0.35	± 0.05
A0	9.40	± 0.10
B0	9.40	± 0.10
K0	4.95	± 0.10





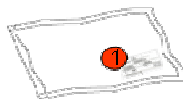
資料號碼 Document No.	版別 Ver.	1.0	頁 Page	8/9
----------------------	------------	-----	-----------	-----



MFG Packing

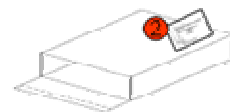


FG in after OQC Packing

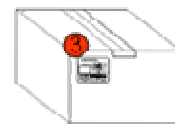


1 reel in a bag = 200pcs

Ship out packing Step



1 bag in an inner box= 200pcs



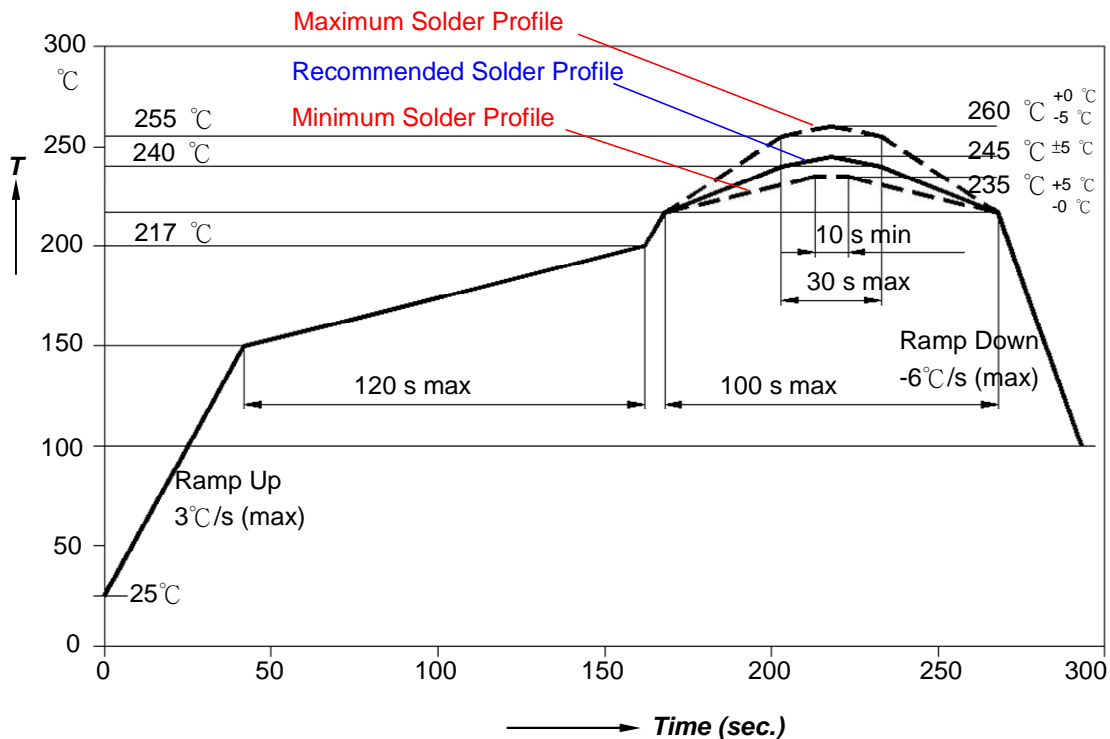
mall size: 5 inner box in an outer box= 1000pcs



資料號碼 Document No.	版別 Ver.	1.0	頁 Page	9/9
----------------------	------------	-----	-----------	-----

Recommended Soldering Profile

The LEDs can be soldered using the parameters listed below. As a general guideline, the users are suggested to follow the recommended soldering profile provided by the manufacturer of the solder paste. Although the recommended soldering conditions are specified in the list, reflow soldering at the lowest possible temperature is advised for the LEDs.



Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Average Ramp-up Rate (T _{smax} to T _p)	3°C/second max.	3°C/second max.
Preheat		
- Temperature Min(T _{smin})	100°C	150°C
- Temperature Max(T _{smax})	150°C	200°C
- Time(t _{smin} to t _{smax})	60-120 seconds	60-180 seconds
Time maintained above:		
- Temperature(T _l)	183°C	217°C
- Time(t _l)	60-150 seconds	60-150 seconds
Peak/classification Temperature(T _p)	215°C	260°C
Time within 5°C of actual Peak Temperature(tp)	10-30 seconds	20-40 seconds
Ramp-Down Rate	6°C/second max.	6°C/second max.
Time 25°C to Peak Temperature	6 minutes max.	8 minutes max.