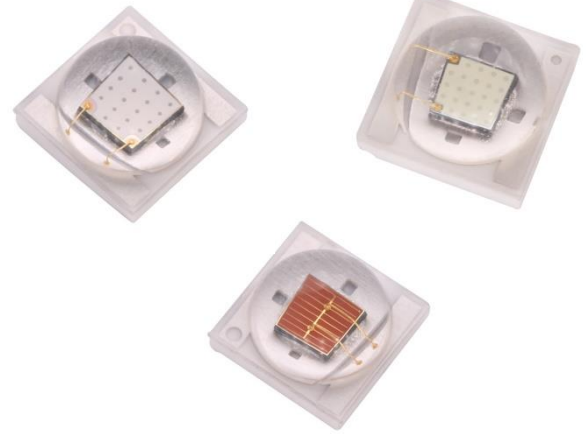


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High Power Ceramic 3535 RGBYIR 3W  
L35C-\*\*\*11C1A-L\*\*V



## Product Brief (产品简介)

### Description (描述)

. This surface-mount LED size is standard package: 3.45x3.45x2.15mm  
. The L35C series is designed for high flux output applications with high current operation capability.

### Features And Benefits (特性优点)

- . Designed for high current operation
- . Low thermal resistance
- . Pb-free reflow soldering application

### Key Applications (应用)

- Architectural lighting
- Industrial lighting
- Portable torch
- Plant Factory
- Flower Production
- Tissue Culture
- Refreshment

Table 1. Product Selection Table (产品目录)

Parameter	Wavelength (5nm/Bin)		
	Color	Min.	Max.
L35C-43011C1A-LGVV	Royal Blue	430	435
L35C-44011C1A-LOVV	Royal Blue	440	445
L35C-45011C1A-LJVV	Blue	450	455
L35C-46011C1A-LSSV	Blue	460	465
L35C-47011C1A-LXVV	Light Blue	470	475
L35C-48011C1A-LGVL	Light Blue	480	485
L35C-49511C1A-LXVV	Cyan	495	500
L35C-52011C1A-LSSV	Green	520	525
L35C-56011C1A-LXVV	Kelly	560	565
L35C-59011C1A-LGUV	Yellow	590	595
L35C-60011C1A-LGUV	Orange	600	605
L35C-61011C1A-LGUV	Orange	610	615
L35C-62011C1A-LSUV	Red	620	625
L35C-65511C1A-LOVV	Crimson	655	660
L35C-66011C1A-LGUV	Crimson	660	665
L35C-73011C1A-LSUV	IR	730	735
L35C-74011C1A-LGUV	IR	740	745

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## Performance

Table 2. Electro Optical Characteristics (光电特性), IF = 700mA, Ta = 25°C, RH60%

Color	Part Number	Wavelength (nm)	Forward Current	Forward Voltage (V)		Luminous Flux (lm) or Radiometric Power (mW)	
				Min.	Max.	Min.	Max.
Royal Blue	L35C-43011C1A-LGVV	430-435	700	3.2	3.4	9lm	10lm
Royal Blue	L35C-44011C1A-LOVV	440-445	700	3.0	3.2	22lm	24lm
Blue	L35C-45011C1A-LJVV	450-455	700	3.0	3.2	35lm	40lm
Blue	L35C-46011C1A-LSSV	460-465	700	3.0	3.2	48lm	52lm
Light Blue	L35C-47011C1A-LXVV	470-475	700	3.0	3.2	65lm	70lm
Light Blue	L35C-48011C1A-LGVL	480-485	700	3.4	3.6	80lm	90lm
Cyan	L35C-49511C1A-LXVV	495-500	700	2.8	3.0	150lm	160lm
Green	L35C-52011C1A-LSSV	520-525	700	2.8	3.0	220lm	240lm
Kelly	L35C-56011C1A-LXVV	560-565	700	2.8	3.0	140lm	150lm
Yellow	L35C-59011C1A-LGUV	590-595	700	2.2	2.4	110lm	120lm
Orange	L35C-60011C1A-LGUV	600-605	700	2.2	2.4	130lm	140lm
Orange	L35C-61011C1A-LGUV	610-615	700	2.2	2.4	130lm	140lm
Red	L35C-62011C1A-LSUV	620-625	700	2.2	2.4	100lm	110lm
Crimson	L35C-65511C1A-LOVV	655-660	700	2.2	2.4	60lm	65lm
Crimson	L35C-66011C1A-LGUV	660-665	700	2.2	2.4	50lm	55lm
IR	L35C-73011C1A-LSUV	730-735	700	2.2	2.4	650mW	700mW
IR	L35C-74011C1A-LGUV	740-745	700	2.2	2.4	600mW	650mW

## Performance

Table 3. Absolute Maximum Ratings (最大额定参数), Ta = 25°C, RH60%

Item	Symbol	Absolute Maximum Ratings	Unit
Forward Current	IF	1000	mA
Power Dissipation	PD	3	W
Reverse Voltage	VR	5	V
Operating Temperature	Topr	-40~+85	°C
Storage Temperature	Tstg	-40~+100	°C
Electrostatic Discharge	ESD	2000	V
View Angle	2θ1/2	120	Deg.

- Tolerance of measurement of Luminous Flux or Radiometric Power:  $\pm 10\%$
- Tolerance of measurement of wavelength:  $\pm 2\text{nm}$
- Tolerance of measurement of Forward Voltage:  $\pm 0.05\text{V}$
- All the data are just for reference, specific parameters refer to the label

## Relative Spectral Distribution

Fig 1. Color Spectrum (光谱图), Ta = 25°C, RH60%

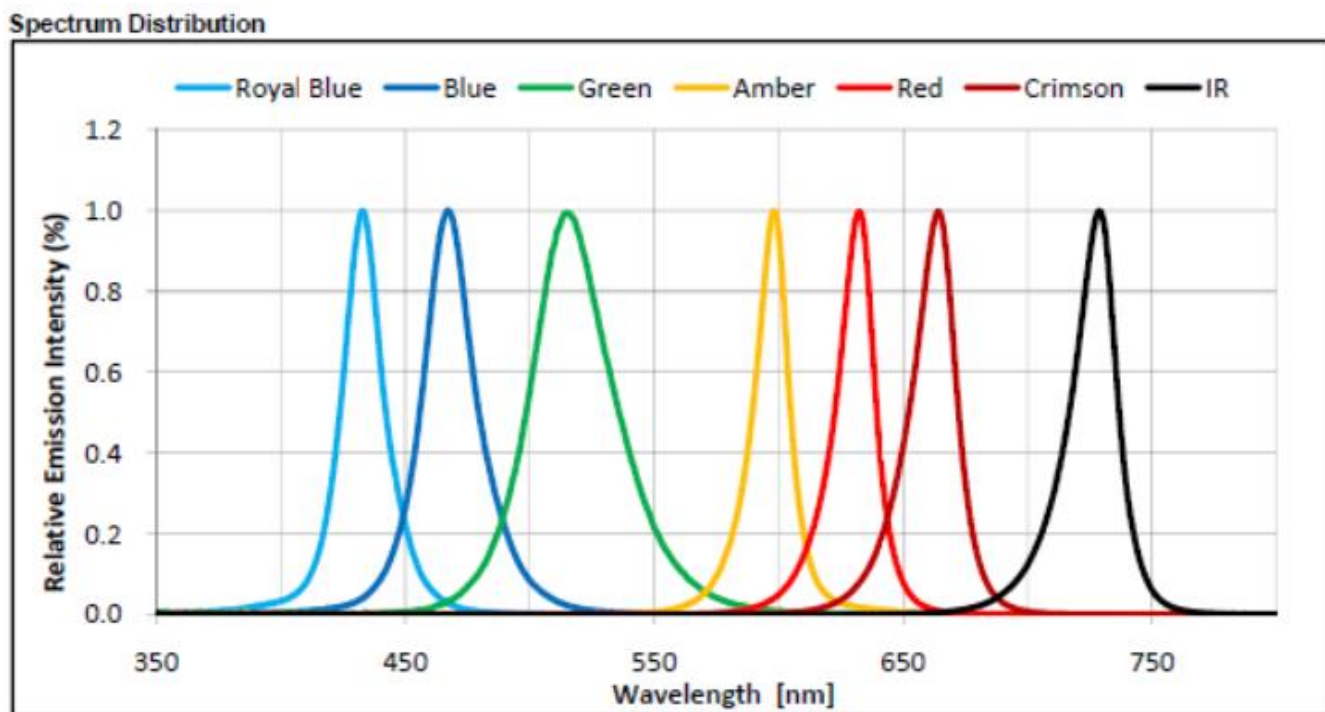
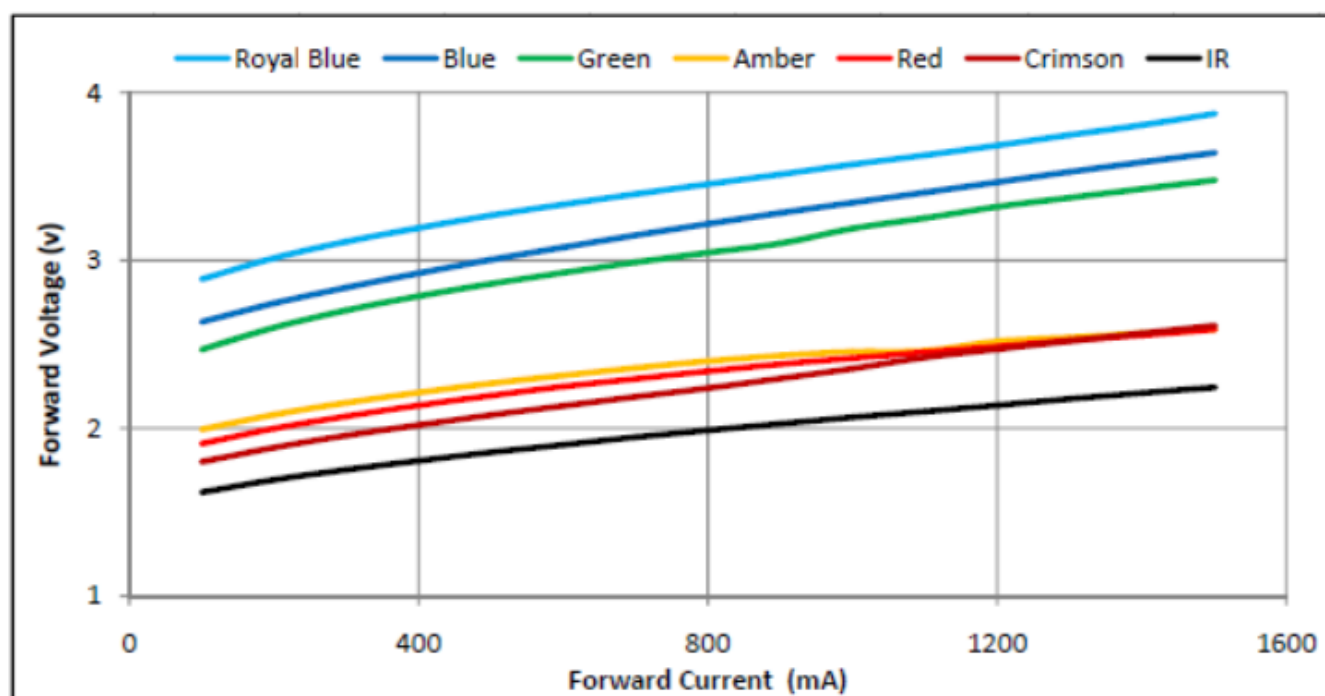


Fig 2. Forward Voltage vs. Forward Current (电压与电流关系), Ta = 25°C



## Relative Spectral Distribution

Fig 3. IF Vs. Relative Intensity (亮度与电流关系), Ta = 25 °C

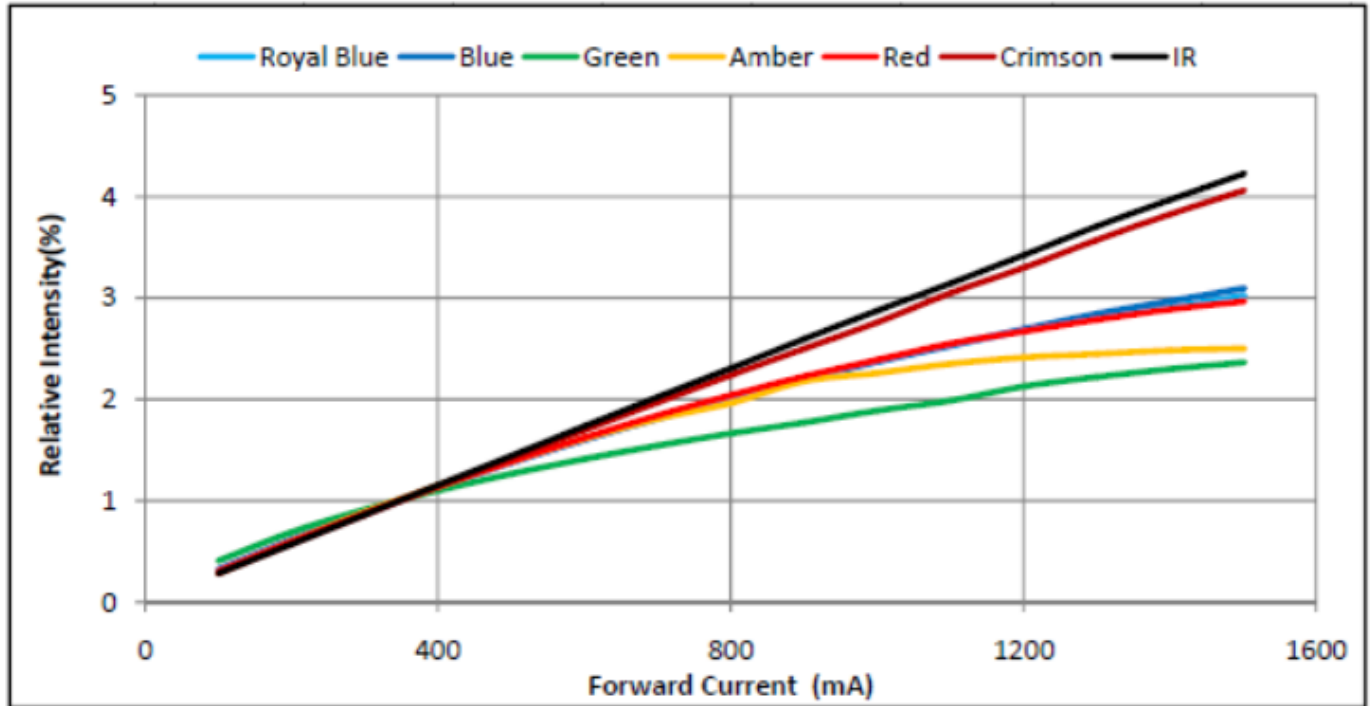
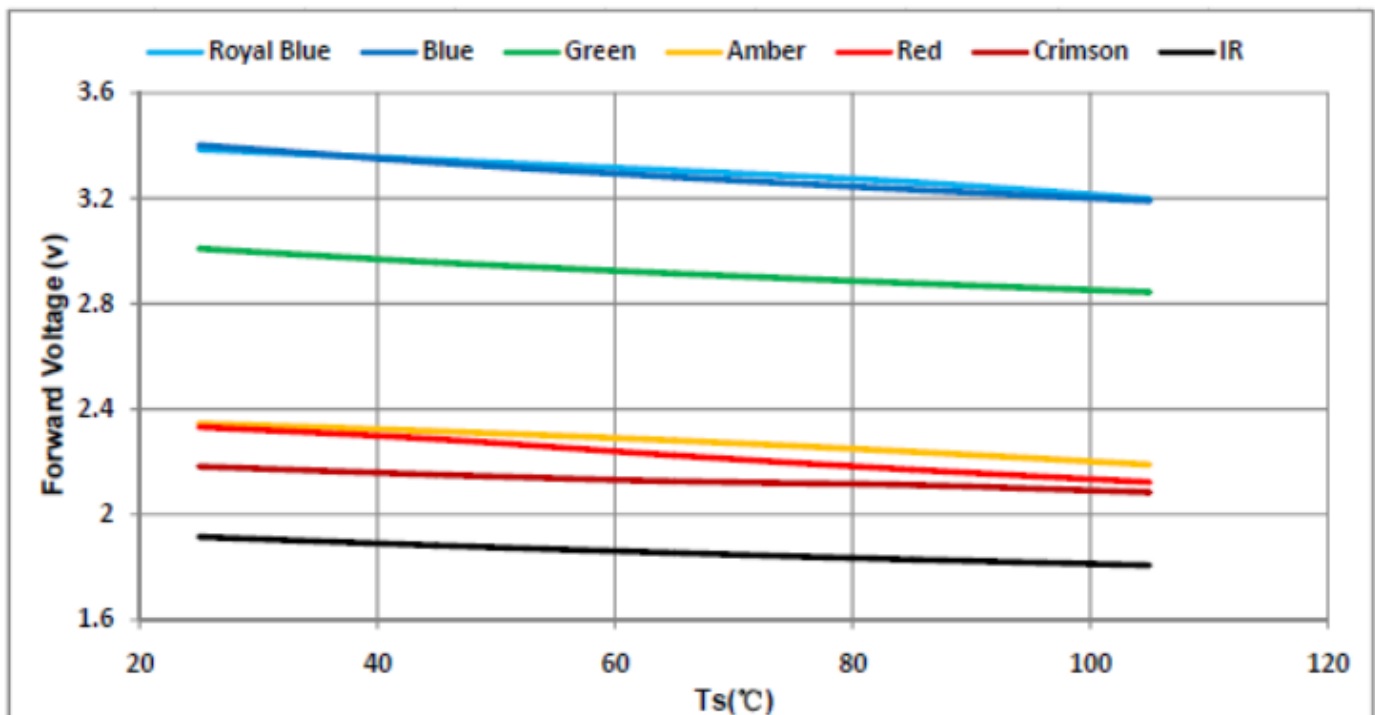


Fig 4. VF Vs. Ts (电压与温度关系), Ta = 25 °C, RH60%



## Relative Spectral Distribution

Fig 5. Ts. Vs. Wavelength (温度与波长关系), Ta = 25°C, RH60%

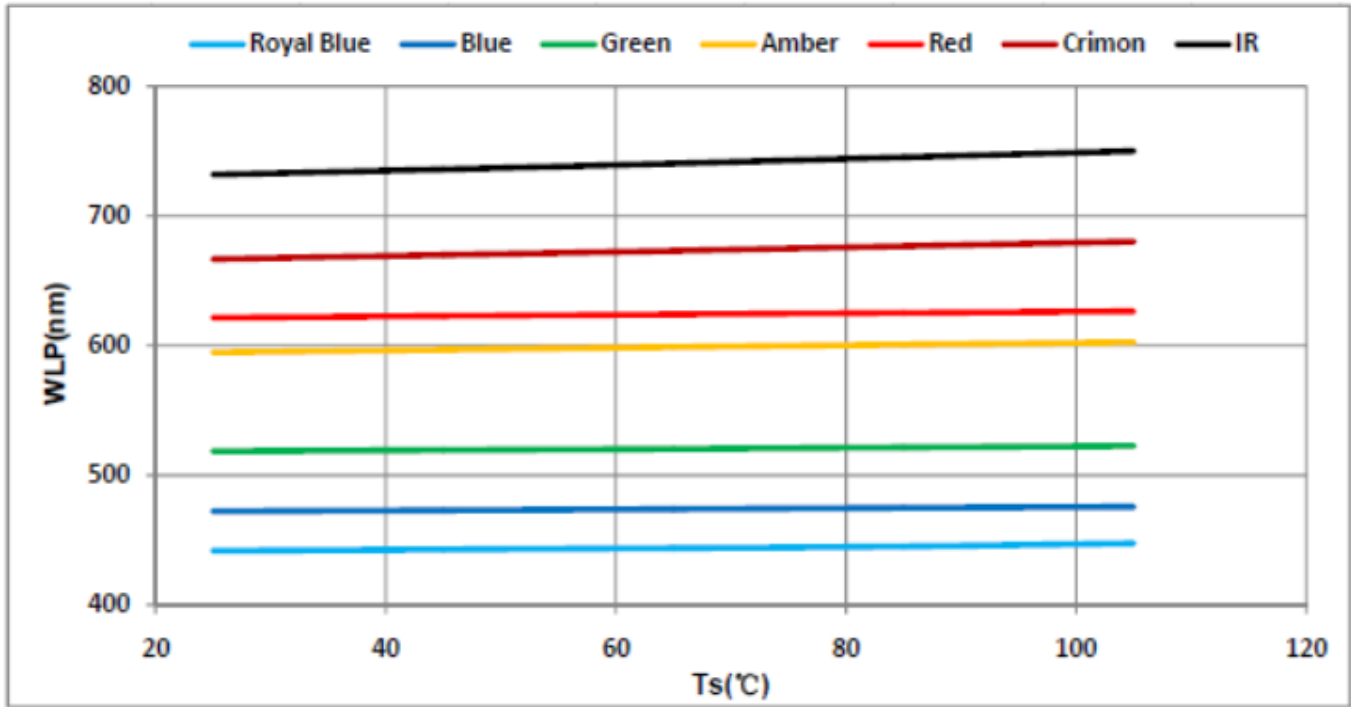
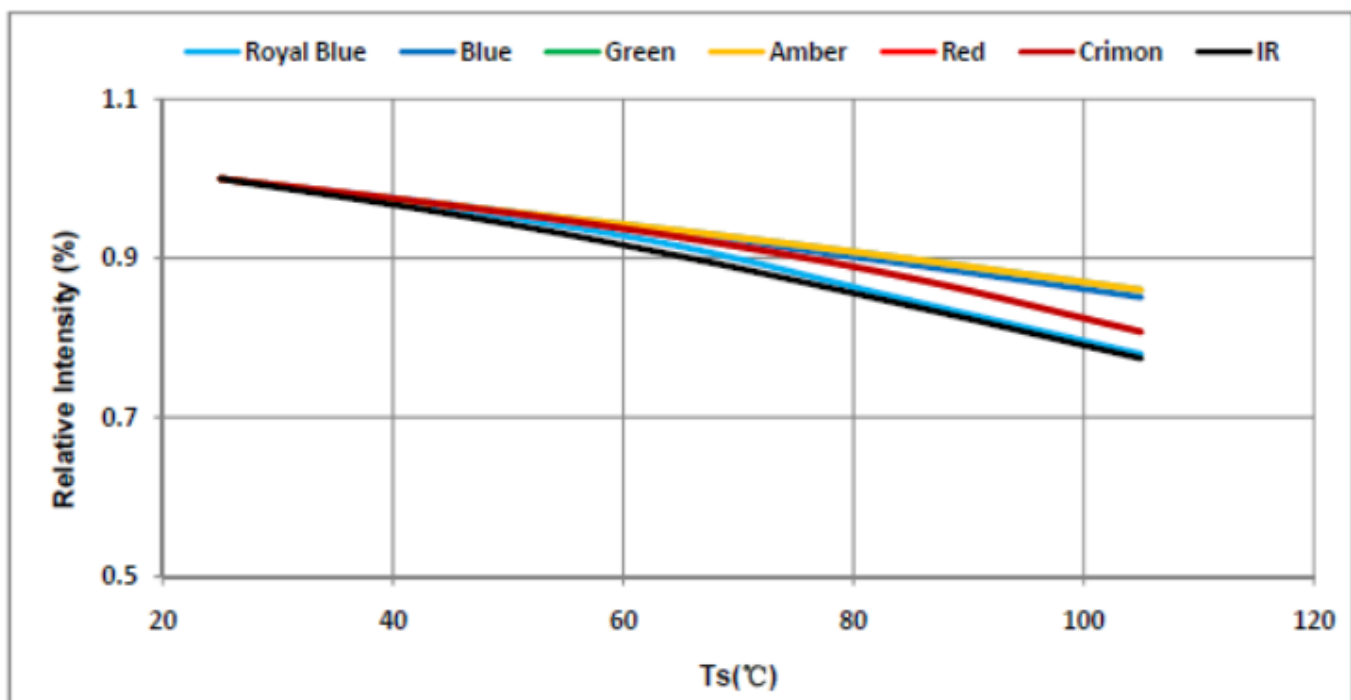
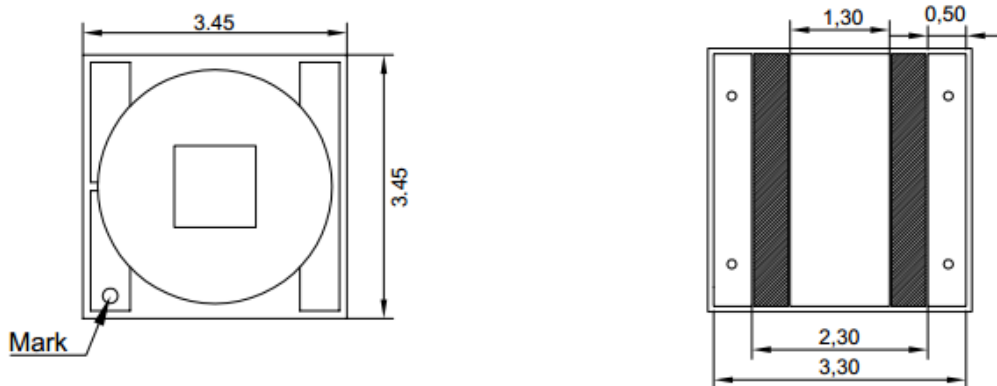


Fig 6. Ts. Vs. Relative Intensity (温度与亮度关系), Ta = 25°C, RH60%



## Outline Vs. Recommended Solder Pad

Fig7. Mechanical Dimensions (产品尺寸)



- All dimensions are in millimeters.
- Scale : none
- Undefined tolerance is  $\pm 0.05\text{mm}$

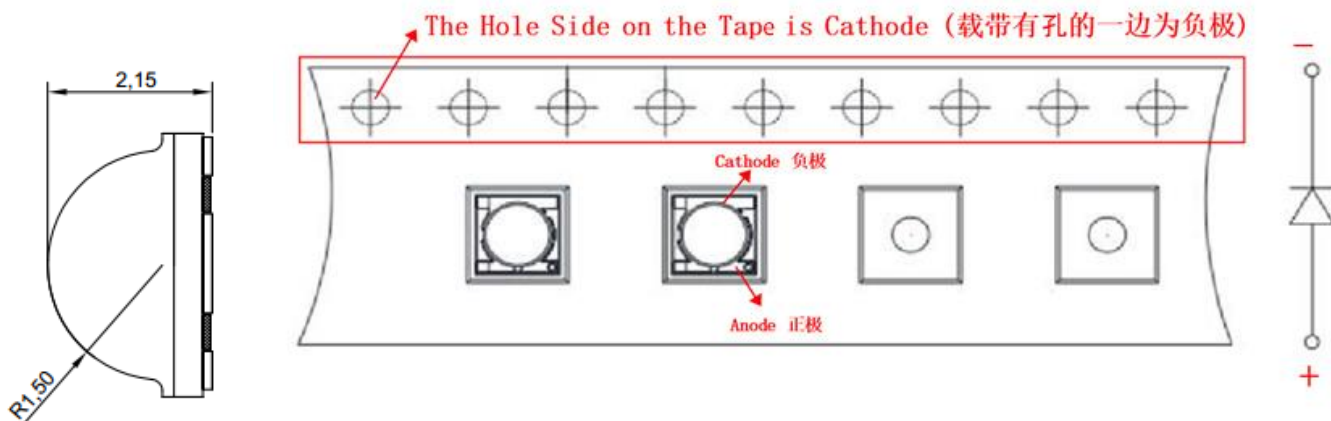
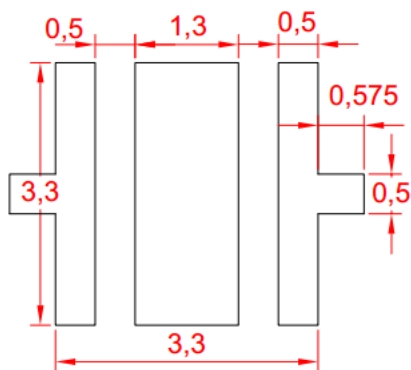
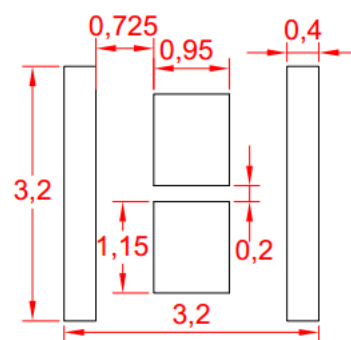


Fig8. Recommended Solder Pad



Recommended PCB Solder Pad

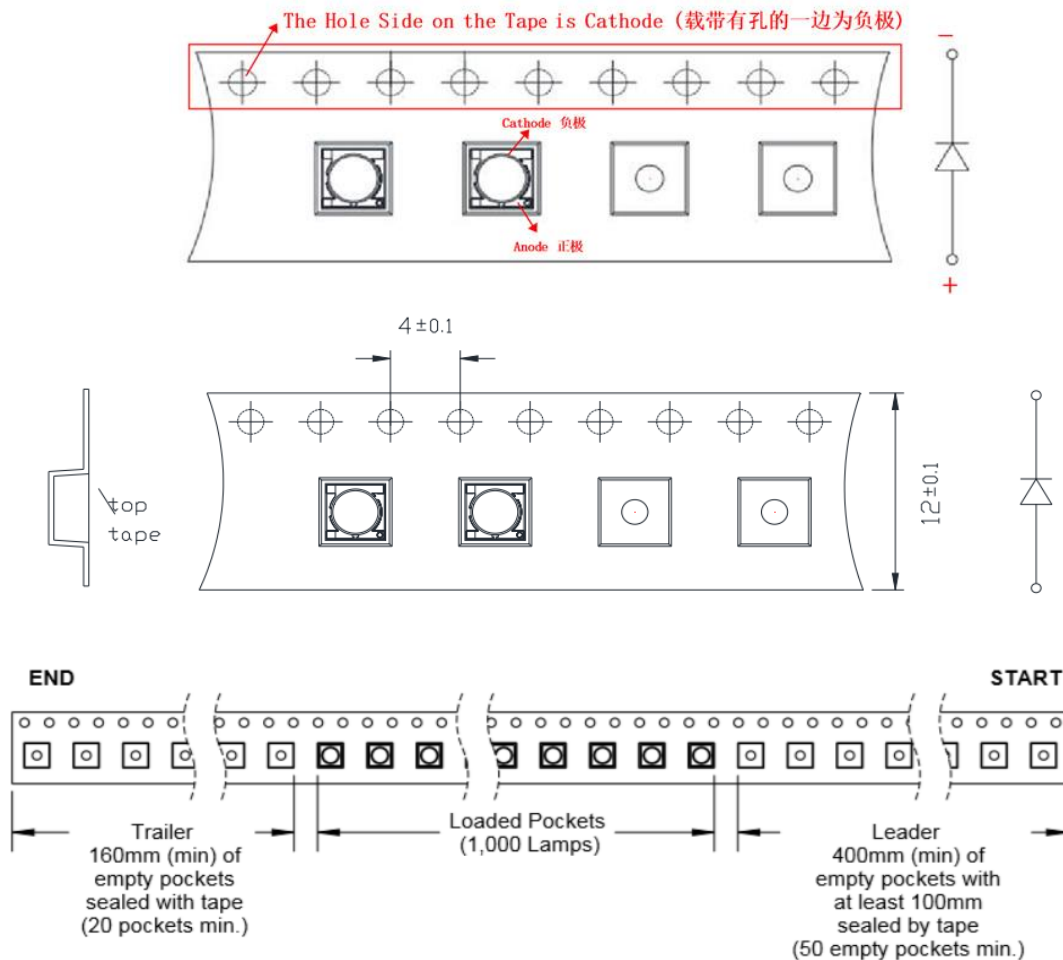


Stencil: 0.12mm  
Recommended Stencil Pattern

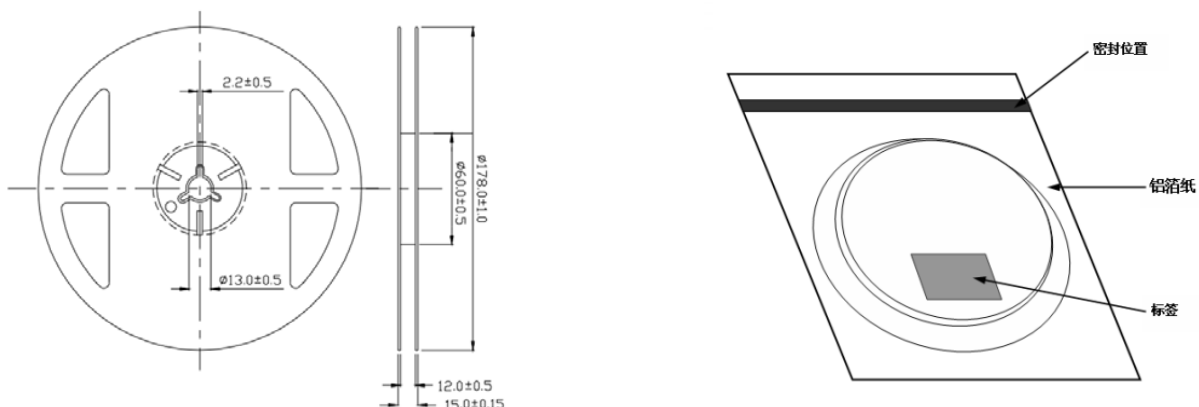


## Packaging Information

Fig 9. Reel Packaging 1000pcs/Reel (卷带包装, 1000pcs/卷)

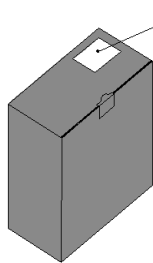
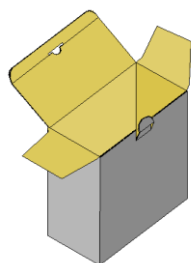


- Quantity : Max 1000pcs/Reel
- Cumulative Tolerance : Cumulative Tolerance/10 pitches to be  $\pm 0.25$ mm
- Adhesion Strength of Cover Tape Adhesion strength to be 0.1-0.7N when the cover tape is turned off from the carrier tape at the angle of  $10^\circ$  to the carrier tape.
- Package : P/N, Manufacturing data Code No. and Quantity to be indicated on a damp proof Package.



## Packaging Information

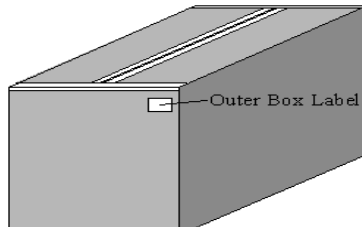
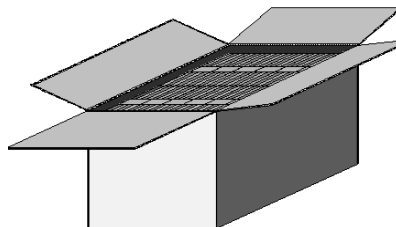
### Inner Box (内箱)



Label: Contains Type,  
Lot NO, Quantity, Product  
Parameters.

\* Capacity 5 or 10 reels per box (内箱容量: 5或10卷)

### Outer Box (外箱)



\* Capacity 30 or 60 reels per box (外箱容量: 30或60卷)

### Label (标签)

深圳市卢米斯科技有限公司  
Shenzhen LumiS Technology Co., Ltd



型号 Type: L32W-6583E1A-TSPL  
光通量Φ: 122-130 [lm]  
色区 Color Bin: #945  
电压 Vf: 9-9.5 [V]  
电流 If: 390mA  
数量 QTY: 5000PCS



H/F ROHS Compliant

Lot ID: S16632810-R1401A-640003  
Country of Origin: CN  
Seal Date: 20170908



**Table 4. Part Numbering System :** L □□ □ - □□□ □ □ □ □ - □□□□

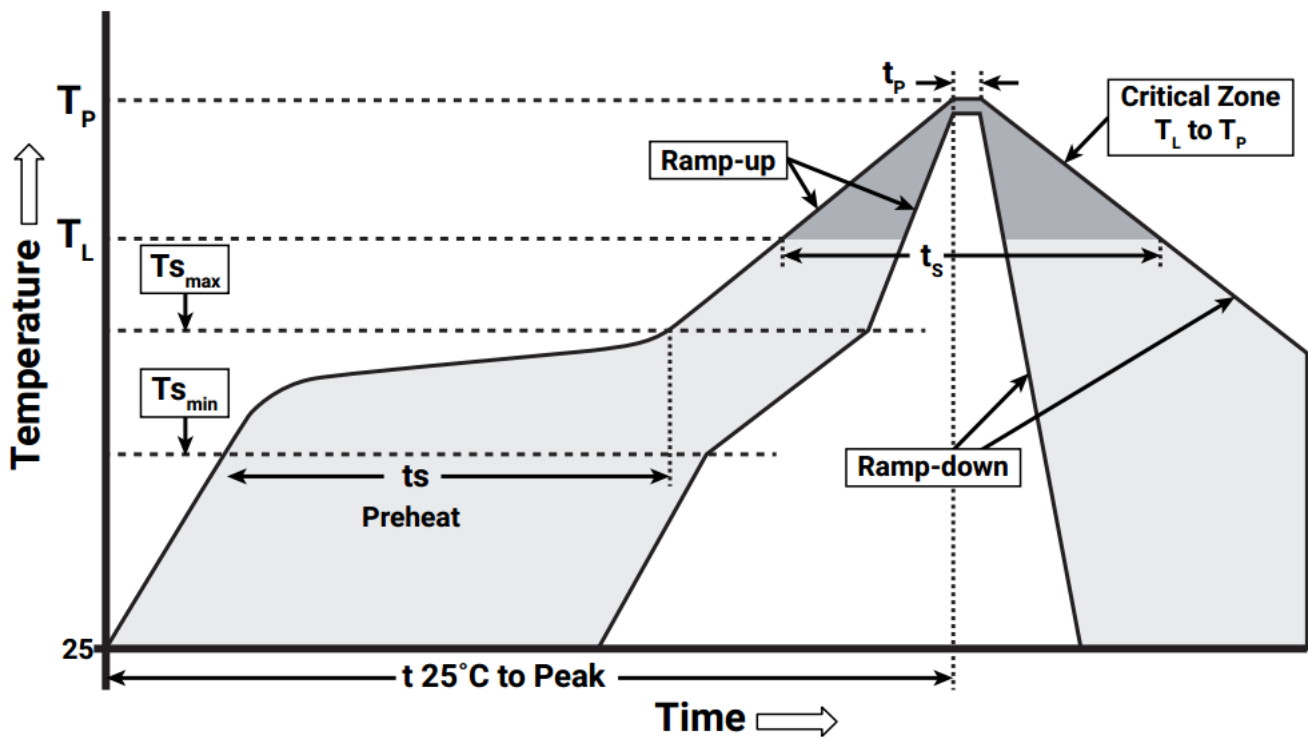
X1 X2 X3 X4 X5 X6 X7 X8

L 35 C - 620 1 1 C1 A - LSUV

Item Number Code	Description	Item Number
X1	LED Type Code 产品代码	60: 6060; 30: 3030; 35: 3535;
X2	Light Color 发光颜色	W: White Color; C: Colored; I: IR; U: UV
X3	Wavelength 波长	280: 280nm; 365: 365-370nm; 390: 395-400nm
X4	No. of Serial Chip 晶片串联数量	1-Z.
X5	No. of Parallel Chip 晶片并联数量	1-Z.
X6	Lead Frame Code 支架代码	E1: EMC; E2: SMC; C1: Al <sub>2</sub> O <sub>3</sub> Ceramic; C2: AlN Ceramic
X7	Viewing Angle 发光角度	A: 120 Deg. ; B: 30 Deg. ; C: 60 Deg. ; D: 90 Deg.
X8	Material Code 物料代码	LumiS Material Code

## Reflow Soldering

**Recommended Mid-Temperature Solder Paste**  
**建议使用中温锡膏**



Profile Feature	Lead-Free Solder
Average Ramp-Up Rate ( $T_{s_{max}}$ to $T_P$ )	1.2 °C/second
Preheat: Temperature Min ( $T_{s_{min}}$ )	120 °C
Preheat: Temperature Max ( $T_{s_{max}}$ )	170 °C
Preheat: Time ( $t_{s_{min}}$ to $t_{s_{max}}$ )	65-150 seconds
Time Maintained Above: Temperature ( $T_L$ )	217 °C
Time Maintained Above: Time ( $t_L$ )	45-90 seconds
Peak/Classification Temperature ( $T_P$ )	235 - 245 °C
Time Within 5 °C of Actual Peak Temperature ( $t_p$ )	20-40 seconds
Ramp-Down Rate	1 - 6 °C/second
Time 25 °C to Peak Temperature	4 minutes max.

## Pre-caution

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### Caution

1. Reflow soldering is recommended not to be done more than two times. In the case of more than 24 hours passed soldering after first, LEDs will be damaged.
2. Repairs should not be done after the LEDs have been soldered. When repair is unavoidable, suitable tools must be used.
3. Die slug is to be soldered.
4. When soldering, do not put stress on the LEDs during heating.
5. After soldering, do not warp the circuit board.

### Notes on LumiS EMC Series soldering:

1. Recommend to use reflow machine.
2. Recommend to use heating plate soldering.
3. Manual soldering is not recommended.

### Notes on reflow process:

1. To confirm whether the actual temperature curve in the reflow soldering conditions comply with recommended conditions. LEDs are guaranteed for one time reflow.
2. During reflow process do not apply force on LED active area.
3. After reflow process, PCB board should be cooled down before packing or storage.

**LumiS**

## Published by

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### Published By:

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#### Company Information

LumiS Technology Co., Ltd is located in Shen Zhen, China, which is a professional manufacturer of LED products that integrates research, production and sales. LumiS is a team focusing on LEDs, LED Modules and LED luminaries. To serve client better, we also provide other led lamp's accessories. Our experienced R&D team and sales team are young but professional. All of us have been serving customers over 4 years. We are aiming to provide full service on led luminaries solution from LEDs, driver to final production. Our engineers can offer the best solution when you design luminaries from the beginning. To be specific, when you design one luminary, LumiS can provide the LEDs with high quality and best price based on our professional knowledge. "Save Your Time, Improve Your Products".

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