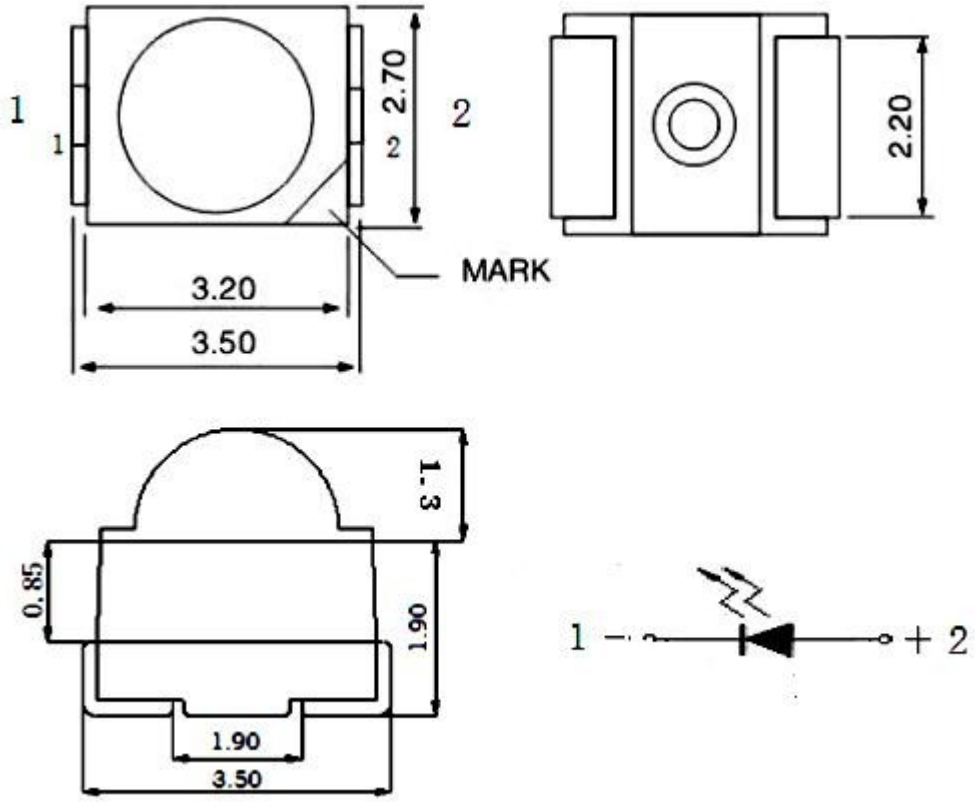
Approve Sheet

/Product	LED
/Part Number	IE-3528R-SB-L-C01-Y
/Issue Date	
/customer specification	
/Customer	
(Lm/mcd)	2000-2500mcd
/VF（V）	2.1-2.5 V
（Wd）	620-630nm
/CRI	
/other request	
/remarks	

■ PackageDimensions:



Notes

Tolerance is ± 0.25mm (.010”) unless otherwise noted.

Protruded resin under flange is 1.0mm(.04”) max.

Lead spacing is measured where the leads emerge from the package.

Specifications are subject to change without notice.

Absolute Maximum Ratings at TA=25

Parameter	Valce	Unit
Power Dissipation	**100**	**mW**
Pulsed Forward Current (1/10 Duty Cycle, 0.1ms Pulse width	**100**	**mA**
Continuous Forward Current	**50**	**mA**
Derating Linear From 50℃	**0.4**	**mA /℃**
Reverse Voltage	**5**	**V**
Test temperature	**-40℃ to+80℃**	
Storage Temperature Range	**-40℃ to +80℃**	
Lead Soldering Temperature [4mm (.157") From Body]	**260℃ for 5 Seconds**	

Electrical / Optical Characteristics at TA=25℃

Parameter	Symbol	Min	Typ.	Max	Unit	Test Condition
Luminous Intensity	**IV**	**2000**	**--**	**2500**	**mcd**	**IF=50mA**
wave length(λd)	**WL**	**620**	**--**	**625**	**nm**	**IF=50mA**
		625		**630**		
Forward Voltage（R）	**VF**	**2.1**	**--**	**2.3**	**V**	**IF=50mA**
		2.3		**2.5**		
Viewing Angle	**2θ1/2**	**50**	**--**	**60**	**deg**	**Note 2**
Reverse Current	**IR**	**--**	**--**	**5**	**μA**	**VR=5V**

Notes Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commission International De L'Eclairage) eye-response curve.1/2 is the off-axis angle at which the luminous intensity is half the axial luminous and intensity.The dominant wavelength, λ d is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.The IV guarantee should be added ± 15%.

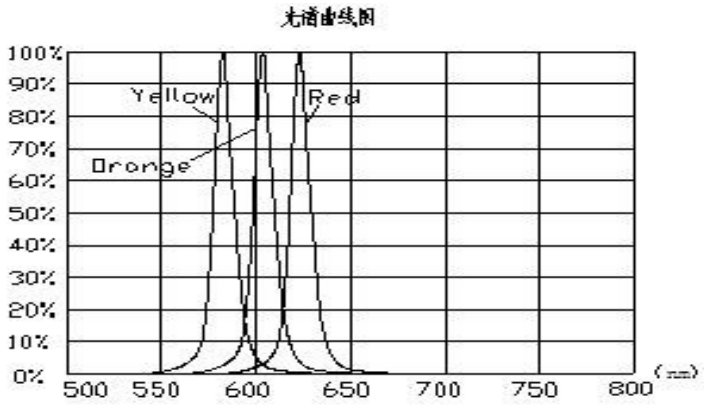
INTENSITY BIN LIMIT (IF=50mA)

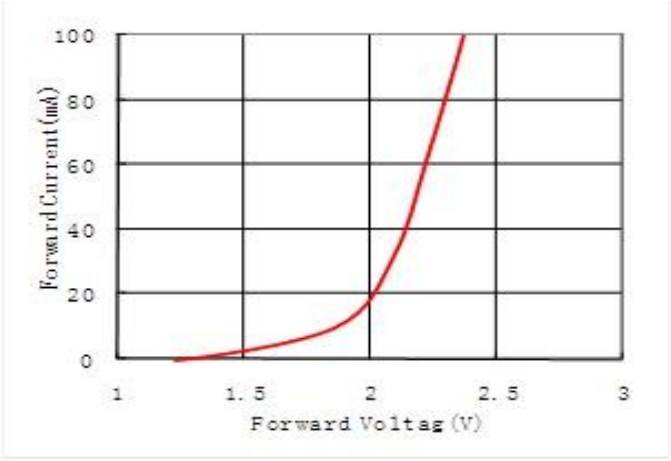
Bin Code	Min(mcd)	Max(mcd)
A	2000	2500

COLOR BIN LIMIT (IF =50mA)

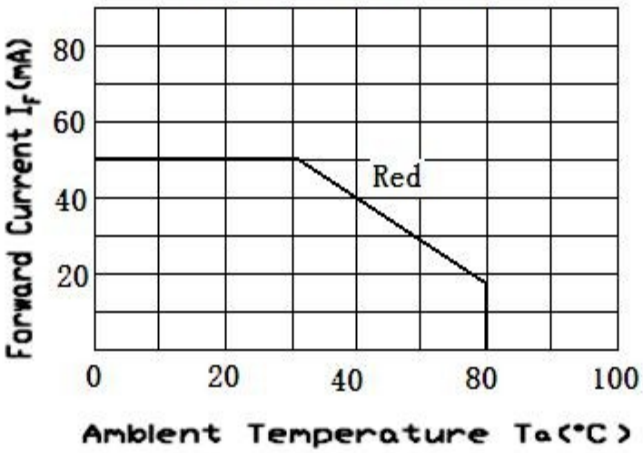
Bin Code	Min(nm)	Max(nm)
A	620	625
B	625	630

Optical Characteristics

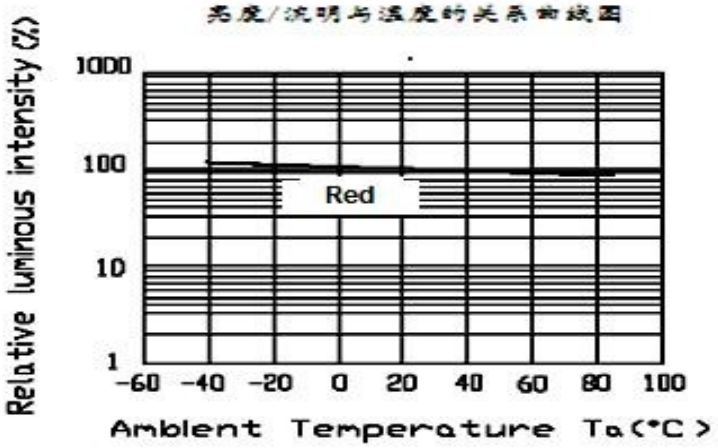


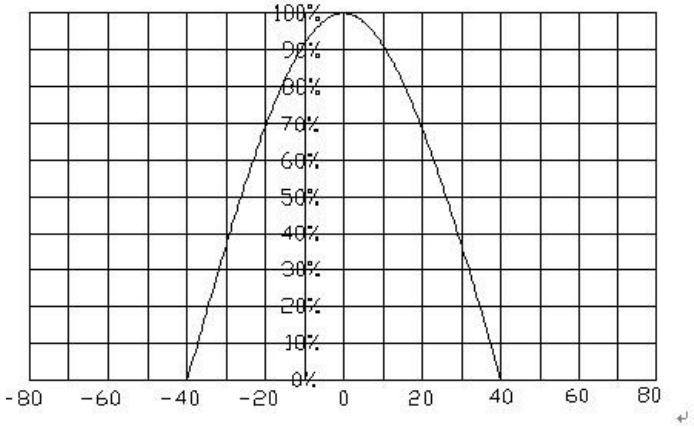


电流与温度关系曲线图

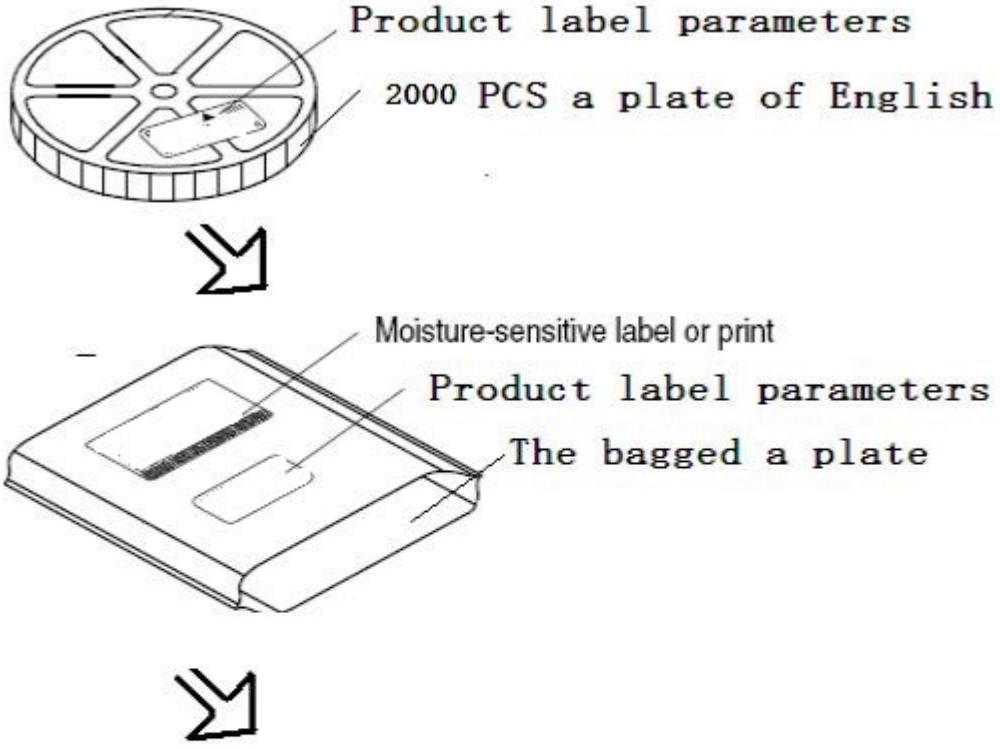


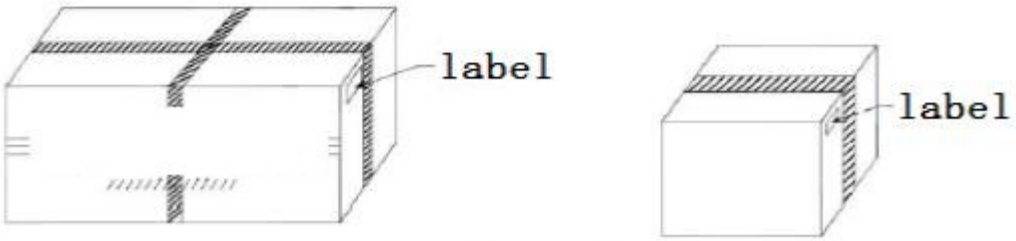
亮度/流明与温度的关系曲线图



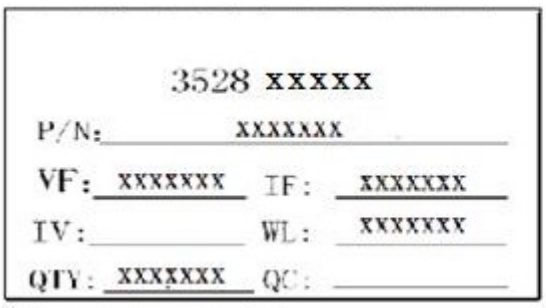


Led packaging in English。





A case of 14 k in English

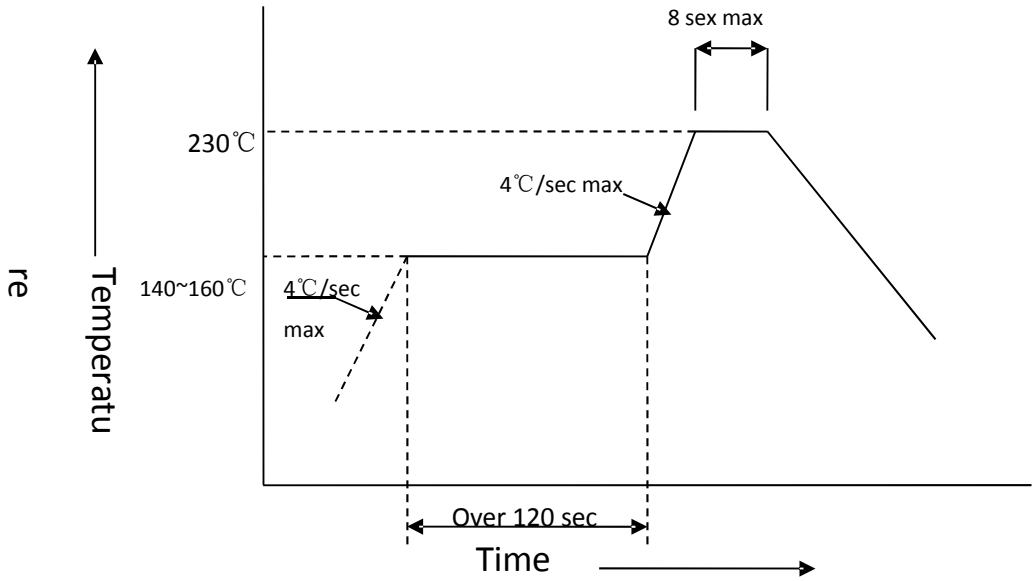


The label format sample

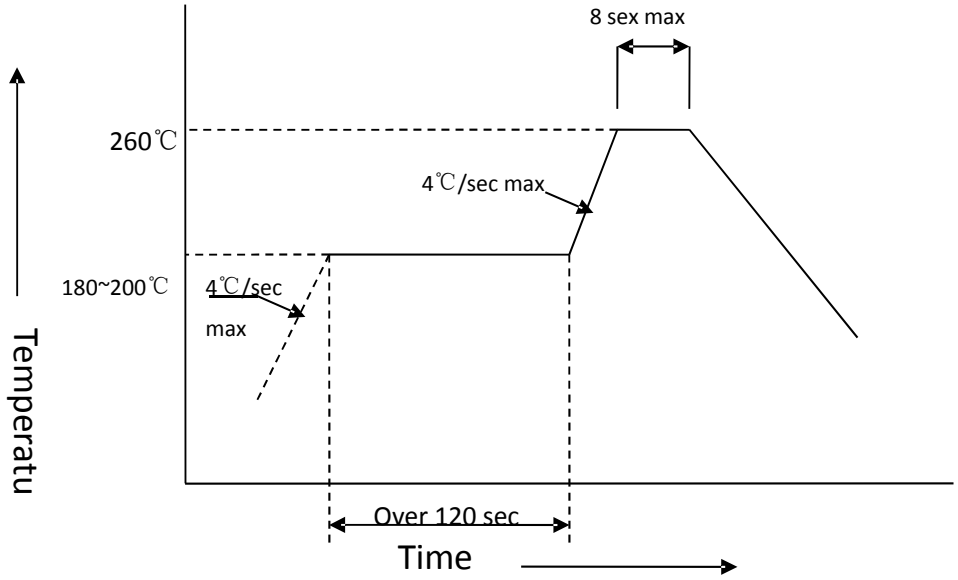
Reflow Soldering Instructions

Number of reflow process shall be less than 1 times and cooling

1>Lead Solder（有铅回焊）

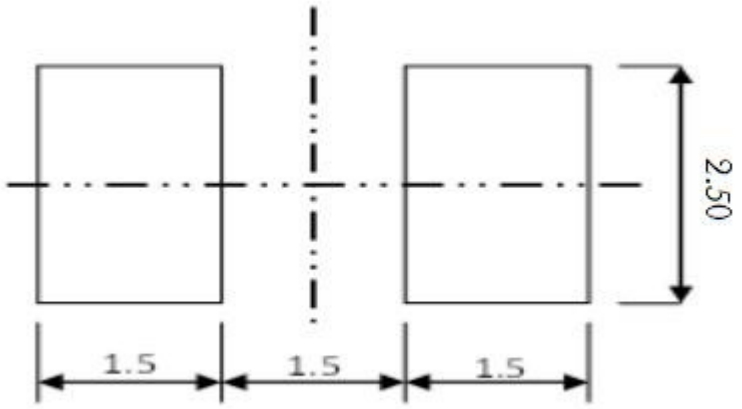


2>Lead-Free Solder



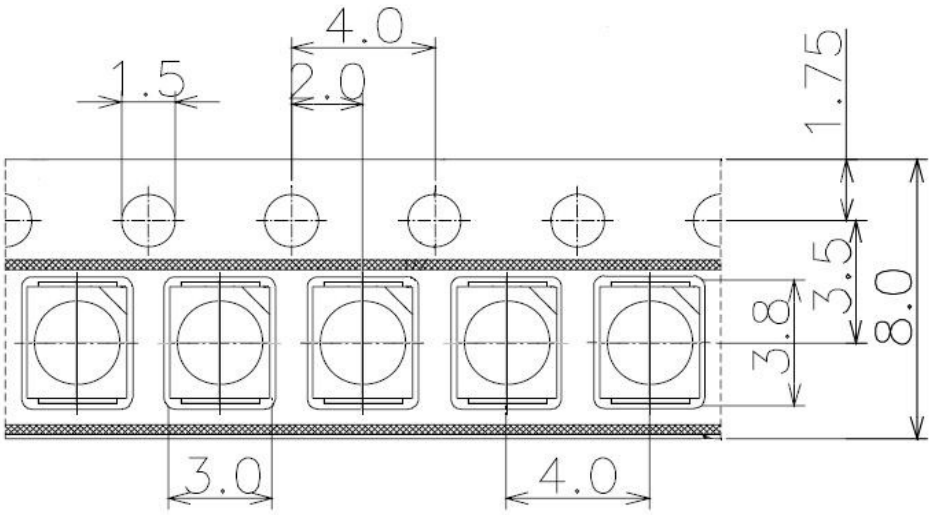
Recommended Soldering Pattern

<Units:mm>



Method of Taping / Polarity and Orientation

Packing unit 2000/reel, ø180 mm



Adhesion Strength of Cover Tape : Adhesion strength to be 0.1 – 0.7N when the cover tape is turned off fromthe carrier at 10˚angle to be the carrier tape.

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深圳市宇亮光电技术有限公司

SMD LED Instruction Manual

LED series products, in order to enhance your understanding of our company's product characteristics, to facilitate you to master its characteristics during use, to minimize or avoid unnecessary factors caused by human factors Damage or performance mismatch. Hereby explain.

1. Material confirmation

Is the LED BIN rating of the feed matched? For example: voltage CIE BIN brightness and other parameters are the same level, the same level should be used together. Whether the positive and negative polarities meet the requirements, whether the different foot positions meet the requirements. If the same level of LED is not applied to the same item, its applicability should be evaluated first. (If the different voltage BINs are used together, the brightness may be different, and different CIE BINs may use the luminescent colors together to make a difference).

2. Packing and storage: Avoid moisture entering the inside of the LED before opening the package. It is recommended that the SMD series of LEDs be stored in a desiccant drying cabinet. Storage environment temperature range 5-30 degrees, humidity does not exceed 50%.

3. Preventive measures after opening the package

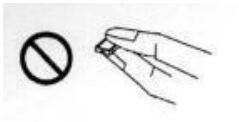
After unpacking, take the whole roll dehumidification measures as much as possible, and dehumidify the conditions: baking at 70 degrees for 4-12 hours.

The dehumidified material should be used as soon as possible (within 24 hours). Remaining material should be sealed or placed in an environment with 10-40 degrees humidity and no more than 30% humidity.

4. Operational notes

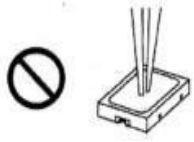
This product can only be rewelded at most twice and after the first reflow, it must be cooled to room temperature before the second reflow can be performed. It is recommended that the reflow temperature range is 200-240 degrees.

During the operation process, the material can not be taken directly by hand. There is sweat on the hand, and the sweat on the surface of the silica gel has optical pollution, affecting the light. In addition, the silica gel is relatively soft, and hand squeezing will cause the dead lamp to be broken.

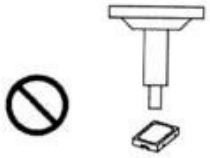


It is not recommended to mount LEDs on a bent circuit board. Avoid rapid cooling during soldering. Avoid any form of mechanical force or excessive vibration during LED solder cooling. After soldering, do not bend the circuit board.

During rework or single-material work, the surface of the colloid cannot be squeezed with tweezers. Because silica gel is relatively soft, squeezing the colloid with tweezers can lead to wire breakage, which can damage the chip and cause it to die.



In batch operations, the suction nozzle smaller than the inner diameter of the product will cause the nozzle to punch the silicone, causing the gold wire to break and the chip to be pressed and die.



It is not advisable to carry out soldering for the repaired LED. If it is unavoidable, double-head soldering iron should be used. However, it is necessary to confirm in advance whether the LED characteristic will be damaged after the repair.

5.Electrostatic Protection LED is an electrostatic sensitive electronic device. Various measures should be taken to avoid static electricity.

For example: Wear an electrostatic ring during use. All devices, equipment and instruments should be grounded. It is recommended to test the assembled LED product to check whether the LED is damaged by static electricity.

6. Cleaning

It is recommended that isopropyl alcohol be used to clean the LEDs. If using other solvents for cleaning, make sure that the solvent does not affect the epoxy, silicone, or stent silver layers. Ultrasonic cleaning is not recommended to avoid damage to the LED. If it is unavoidable, please perform a pre-test beforehand to confirm whether it has adverse effects on the LED or potential problems.

7. Other considerations

Long-term exposure of the LED to sunlight or occasional exposure to ultraviolet light may cause yellowing of the gel.

In order to ensure the photoelectric performance of the LED, please keep the surface of the LED lighting area clean and avoid fingerprints or other foreign objects covering.

When designing the circuit, reverse voltage or excessive current in the switching process should be prevented from impacting the LED instantaneously.

During use, avoid sharp tools such as tweezers touching the silicone gel section.