

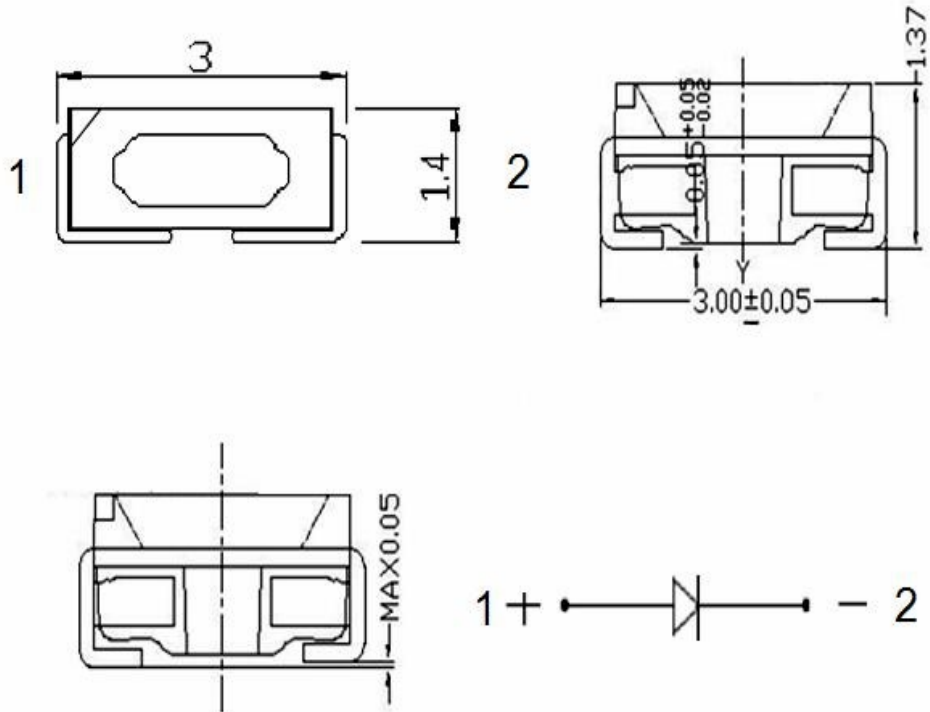
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## Approve Sheet

<b>/Product</b>	<b>LED</b>	
<b>/Part Number</b>	3014	
	IE-3014R-ST-R-C01-Y	
<b>/Issue Date</b>		
<b>/customer specification</b>		
<b>/Customer</b>		
<b>(mcd)</b>	R:600-800mcd	
<b>/VF (V)</b>	R:2.0-2.4V	
<b>/CRI</b>		
<b>/remarks</b>		
<b>/Maker</b>		
<b>Prepared</b>	<b>Checked</b>	<b>Customer Confirmation</b>

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## Package Dimensions:



## Notes

All dimensions are in millimeters (inches).

Tolerance is  $\pm 0.25\text{mm}$  (.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°C

Parameter	Valce	Unit
Power Dissipation	R	mW
	60	
Pulsed Forward Current (1/10 Duty Cycle, 0.1ms Pulse width)	60	mA
Continuous Forward Current	30	mA
Derating Linear From 50 °C	0.4	mA /°C
Reverse Voltage	5	V
Operation Temperature Range	-30°C to +80°C	
Storage Temperature Range	0°C to +40°C	
Lead Soldering Temperature [4mm (.157") From Body]	260°C for 5 Seconds	

## Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol		Min	Typ.	Max	Unit	Test Condition
Luminous Intensity(	IV	R	600	--	800	mcd	IF=30mA
Viewing Angle( )	2 θ 1/2		110	--	120	deg	Note 2
wave length(λd )( )	R		620	--	625	nm	IF=30mA
			625		630		
Forward Voltage (R)	VF	R	2.0	--	2.2	V	IF=30mA
			2.2		2.4		
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%.

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INTENSITY BIN LIMIT (IF=30mA)

**Red**

<b>BinCode</b>	<b>Min(mcd)</b>	<b>Max(mcd)</b>
<b>A</b>	<b>600</b>	<b>800</b>

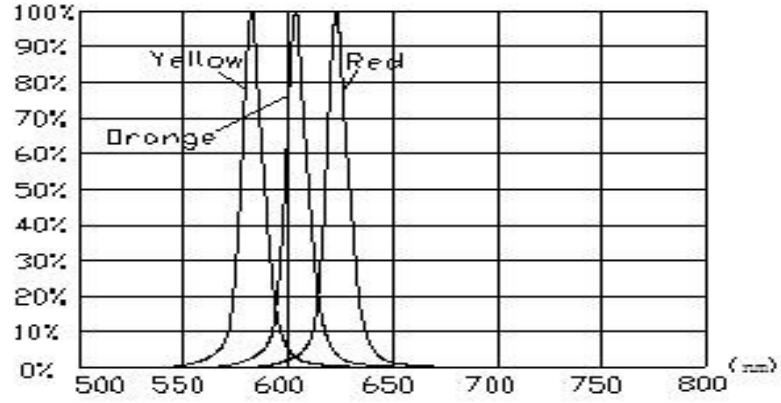
COLOR BIN LIMIT( IF=30mA)

**Red**

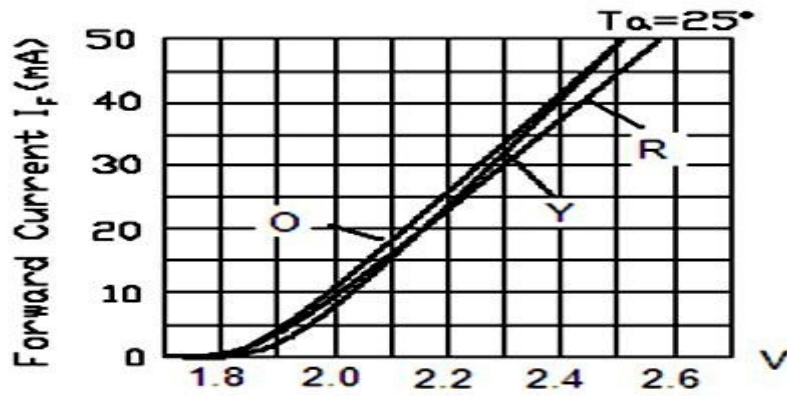
<b>BinCode</b>	<b>Min(nm)</b>	<b>Max(nm)</b>
<b>A</b>	<b>620</b>	<b>625</b>
<b>B</b>	<b>625</b>	<b>630</b>

# Optical Characteristics

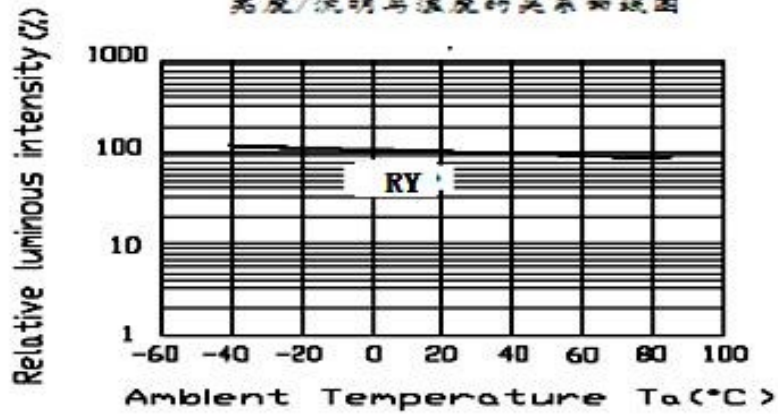
光谱曲线图



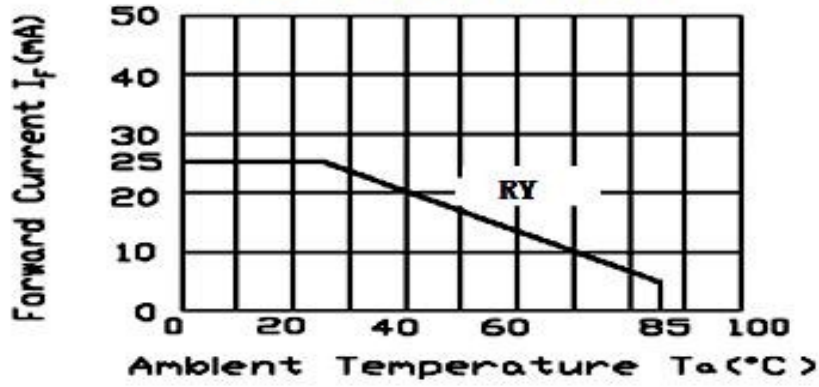
电压电流关系曲线图



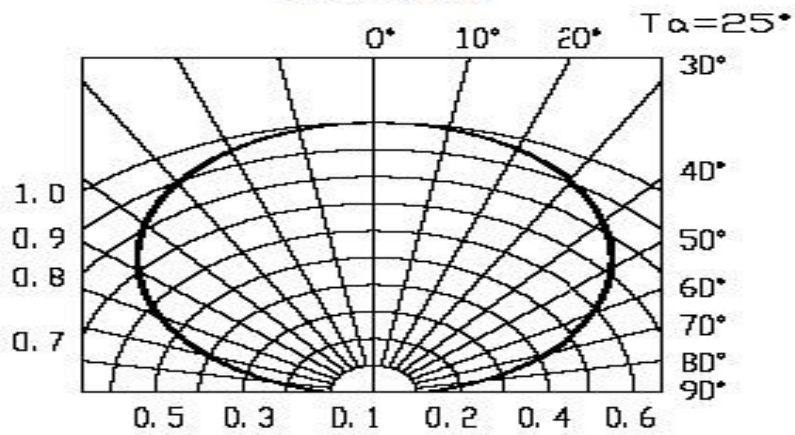
亮度/流明与温度的关系曲线图



电流与温度关系曲线图



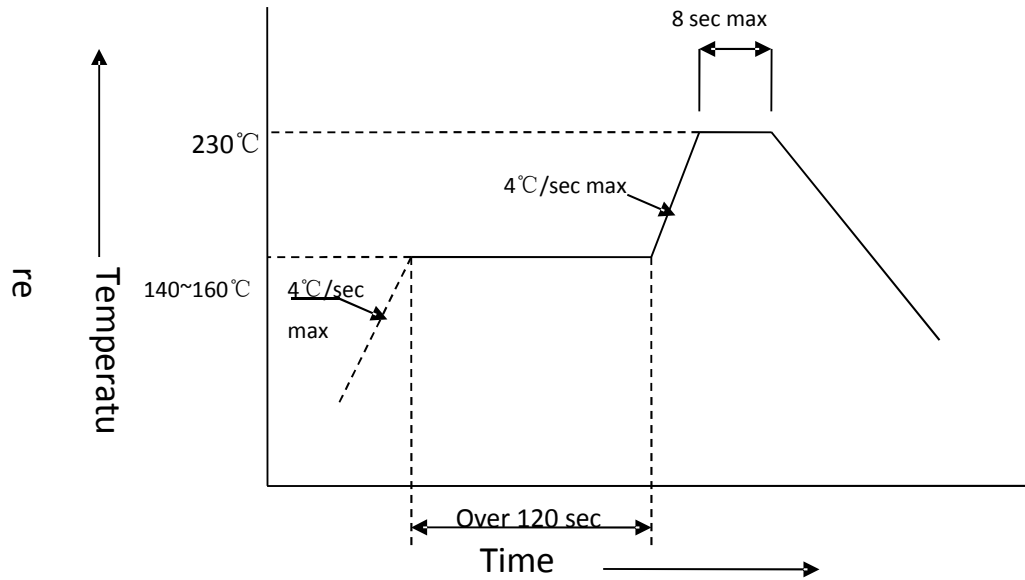
发光角度图



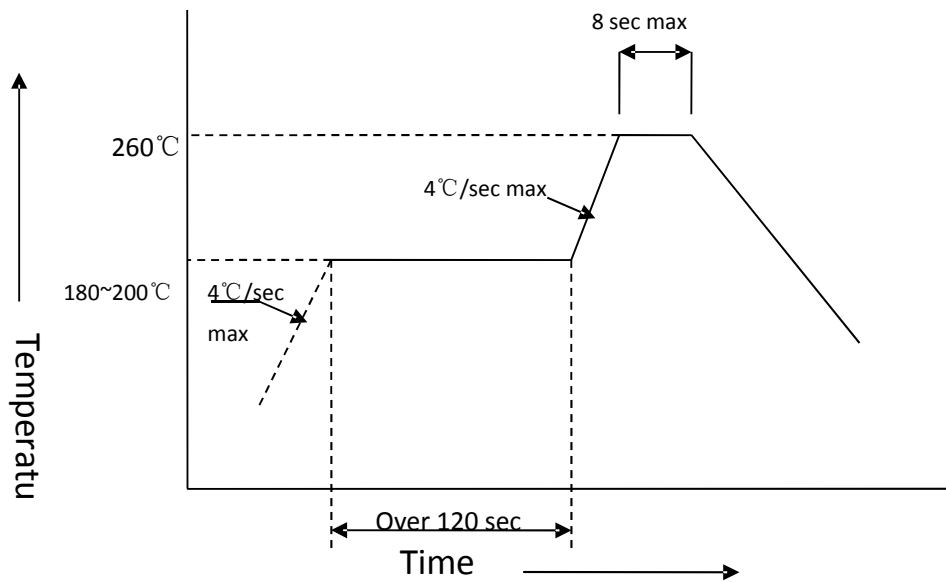
## Reflow Soldering Instructions

Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and Second soldering process.

### 1>Lead Solder (有铅回焊)



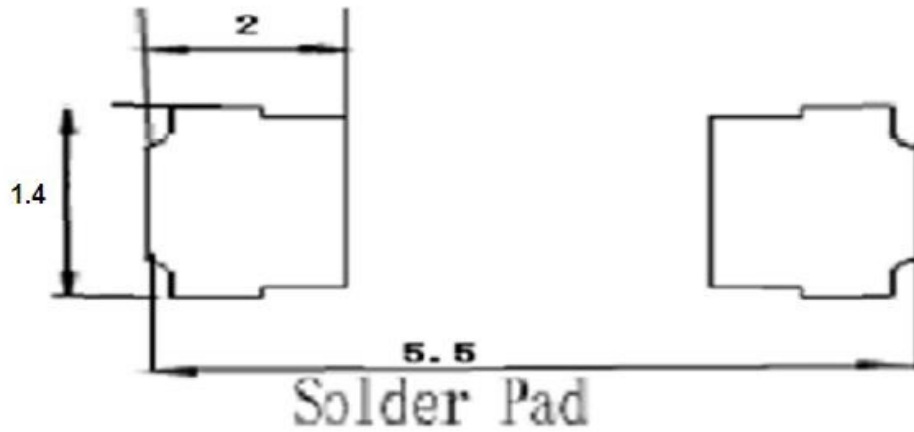
### 2>Lead-Free Solder(无铅回焊)



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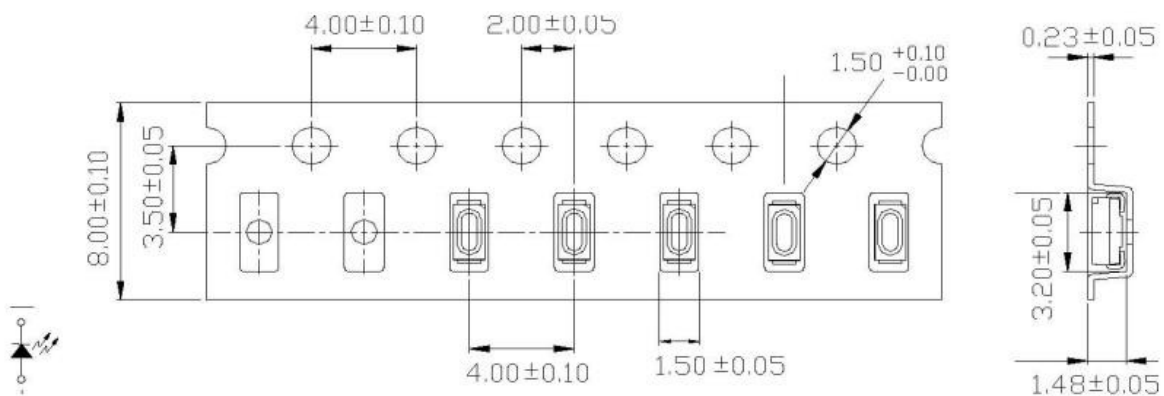
## Recommended Soldering Patter

<Units:mm>



## Method of Taping / Polarity and Orientation

Packing unit 1000/reel,  $\varnothing 180$  mm



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

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## SMD LED instruction manual

Thank you for using LED products,  
in order to enhance your company's product features to understand your understanding of the use of the process to facilitate its use of features to minimize or avoid unnecessary human factors caused by the product Damage or performance mismatch. Special note here.

### 1. Material confirmation

The input LED BIN level is consistent. For example: voltage CIE BIN brightness and other parameters belong to the same level, the same level should be used together. Whether the positive and negative polarities meet the requirements, different pins glow to meet the requirements. If not the same level of LED application in the same object, should first assess its applicability. (There may be differences in brightness if different voltage BINs are used together, and different CIE BINs may use different colors when used together).

2. Packaging and storage: Pre-packaging to avoid moisture inside the LED, SMD LED recommended storage in desiccant cabinet with built-in desiccant. Storage temperature range of 5-30 degrees, humidity does not exceed 50%.

### 3. After opening the packaging precautions

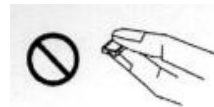
After opening the package as whole roll dehumidification measures, dehumidification conditions: 70 degrees baking 4-12 hours.

Dehumidified material should be used as soon as possible (within 24 hours). Residual material, please seal or placed in the 10-40 degrees, humidity does not exceed 30% of the environment.

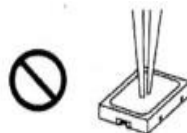
### 4. Operating precautions

This product can be reflowed only up to twice, and after the first reflow to be cooled to room temperature before the second reflow. Recommended reflow temperature range 200-240 degrees.

In the process of operation, can not directly take materials by hand, hands sweat, sweat on the surface of silica gel optical pollution, affecting the light. In addition, the relatively soft silicone, squeezing the hand can lead to broken wire killed lights.

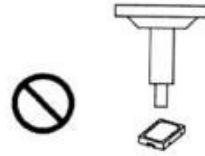


It is not recommended to mount the LED on a bent circuit board. Avoid rapid cooling during soldering, avoid any form of mechanical force or excessive vibration during LED soldering, and do not bend the board after soldering. In the rework or single material operation, the surface can not be squeezed with tweezers colloidal silica gel is relatively soft, squeezing the gel with tweezers will lead to breakage, crushing the wafer, and thus die lights.



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In batch operation, the nozzle is smaller than the product diameter will lead to nozzle punching silicone, causing the gold wire break, the chip pressure die light.



To complete the welding of the LED repair work should not be carried out, if inevitable, the use of double-headed iron, but in advance to confirm whether the LED properties after the rework damage.

5. ESD protection LED is the original electrostatic sensitive electronic devices, should take various measures to avoid static electricity.

Example: Wear an electrostatic ring during use. All equipment, equipment, equipment should be grounded. It is recommended to test the assembled LED products to check whether the LED is damaged by static electricity.

#### 6. Cleaning and cleaning

Isopropyl alcohol is recommended for LED cleaning. If cleaning with other solvents, make sure that this solvent does not affect epoxy, silicone, silica gel, stent silver, etc. It is not recommended to use ultrasonic cleaning to avoid damaging the LED. If unavoidable, please pre-test prior to cleaning to confirm whether the LED adverse effects or potential problems.

#### 7. Other precautions

Prolonged exposure of the LED to sunlight or occasional exposure to UV light can cause the colloid to turn yellow.

In order to ensure that the LED photoelectric properties, please keep the surface of the LED light-emitting area clean, to avoid fingerprints or other foreign objects covered.

In the design of the circuit should prevent the switching process of reverse voltage or excessive current LED instant impact.

Avoid touching sharp parts of silicone gel with sharp tools such as tweezers during use.