

RoHS

# Specification

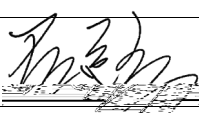

Client Name

Client P/N

Product P/N

HL-C3535F9V395-D1-LVR9(Au120)

Sending Date

Approval	Audit	Approval	Audit	Confirmation
				
Qualified	Disqualified	DATE:		

**1. Product naming rules**

**2. Features**

**3. Application range**

**. Radiation Pattern**

**5. Typical Optical/Electrical Characteristics Curves**

**/**

**6. Absolute Maximum Ratings**

**7. Package Dimensions**

**8. Welded plate Dimensions**

**9. Label**

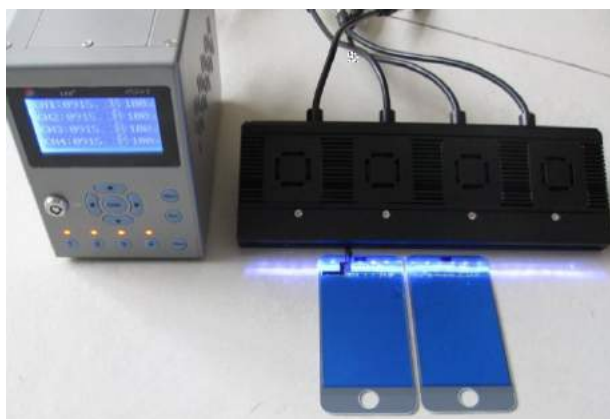
**10. Tape Specifications**

**11. Reflow soldering instructions**

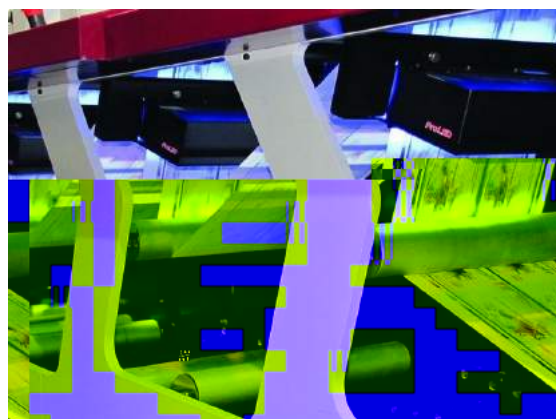
**12. Use the matters needing attention**



## Application range



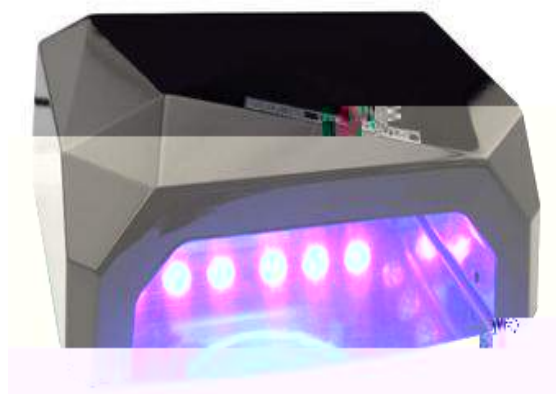
UV  
UV Curing



UV  
UV Printing



UV  
UV Exposure

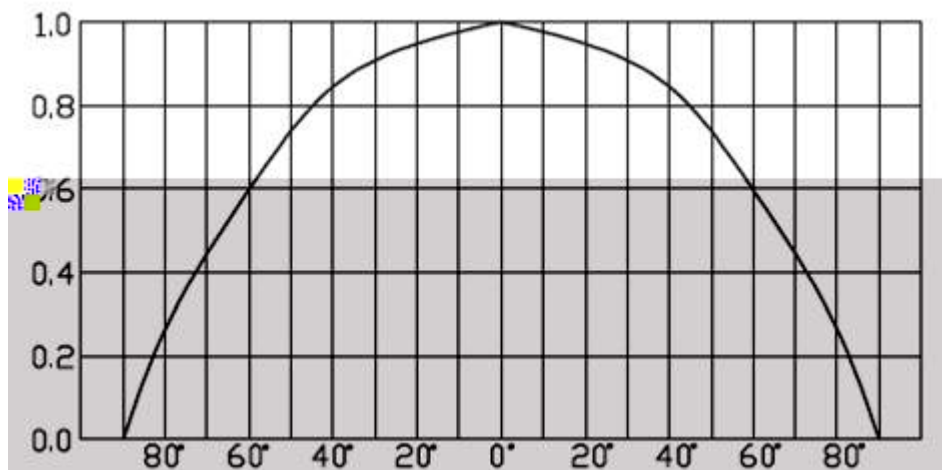
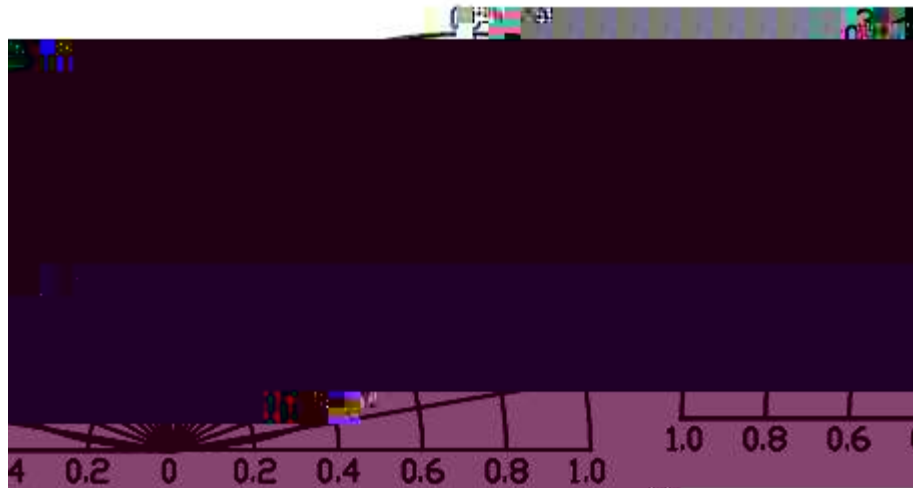


Nail Polish Curing



Mosquito Killer

## Radiation Pattern



## Typical Optical/Electrical Characteristics @Ta=25±7 °HmdY

Symbol	Item	Min.	Typ.	Max.	Units	
e	Radiation Flux辐射功率	700	800	—	mW	IF=500mA
VF	Forward Voltage 正向电压	3.0	—	3.8	V	IF=500mA
λ <sub>P</sub>	Peak Wavelength	390	—	400	nm	IF=500mA
2θ <sub>1/2</sub>	50% Power Angle	—	120	—	deg	IF=500mA
IR	Reverse Current	—	—	50	uA	VR = 5V
L50	Life Time	5000	—	—	Hour	IF=500mA
L50	Life Time	—	3000	—	Hour	IF=700mA

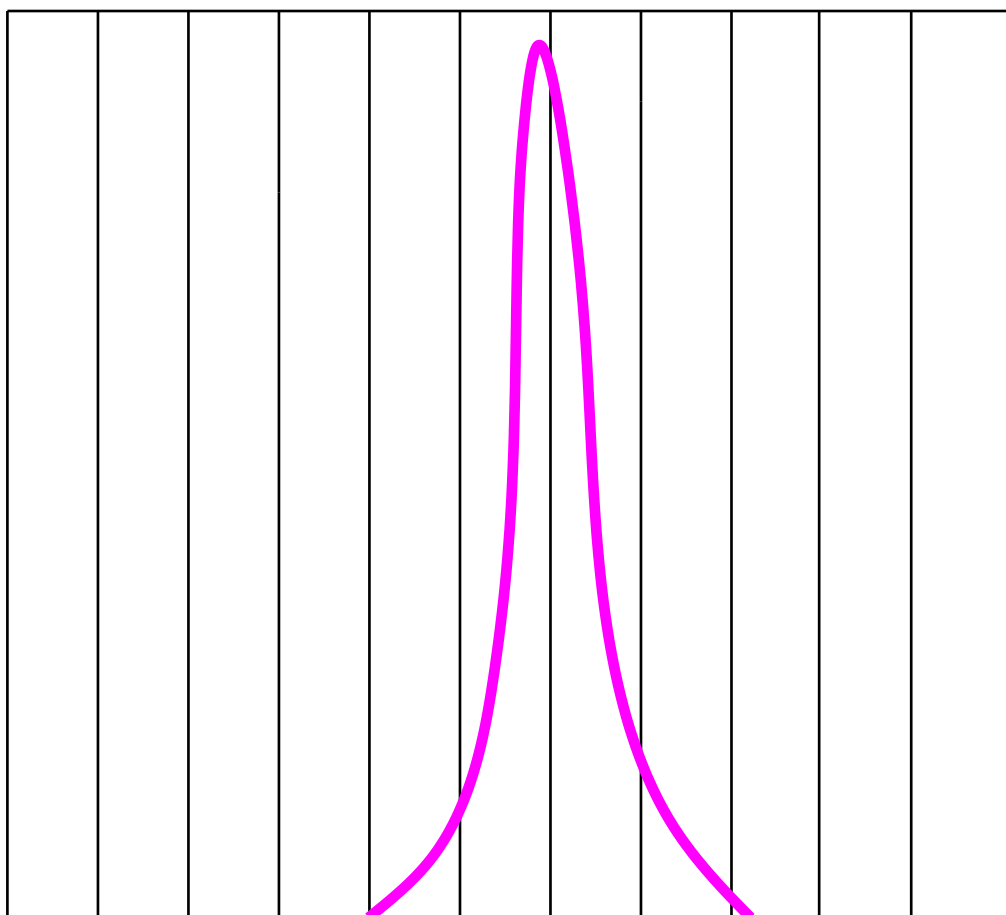
## Absolute Maximum Ratings 绝对最大额定值@H51&)±7

Item名称	Symbol 符号	Absolute Maximum Rating 绝对最大额定值
Power dissipation	P <sub>d</sub>	2.8 W
Peak Forward Current	I <sub>F</sub>	700 mA
Reverse Voltage	V <sub>R</sub>	5 V

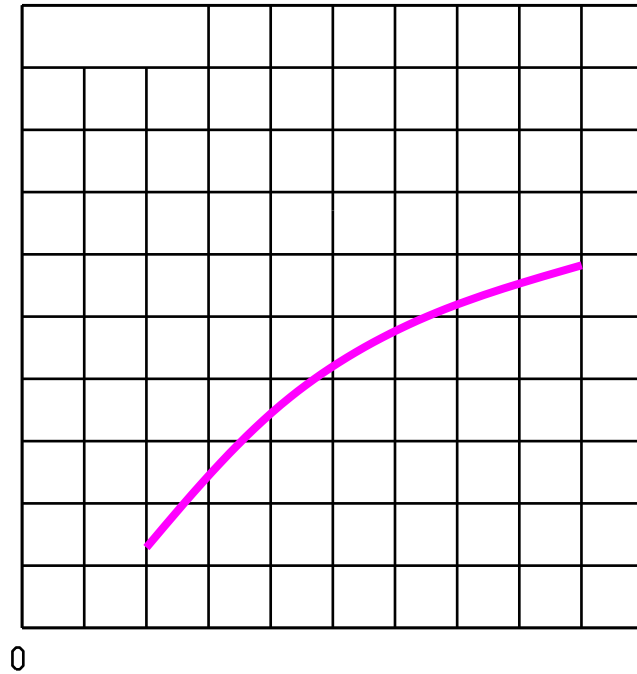
## Typical Optical/Electrical Characteristics Curves ( $T_a=25$ Unless Otherwise Noted )

典型光学/电性特征曲线 ( $T_a=25^{\circ}\text{C}$  除非另有注释)

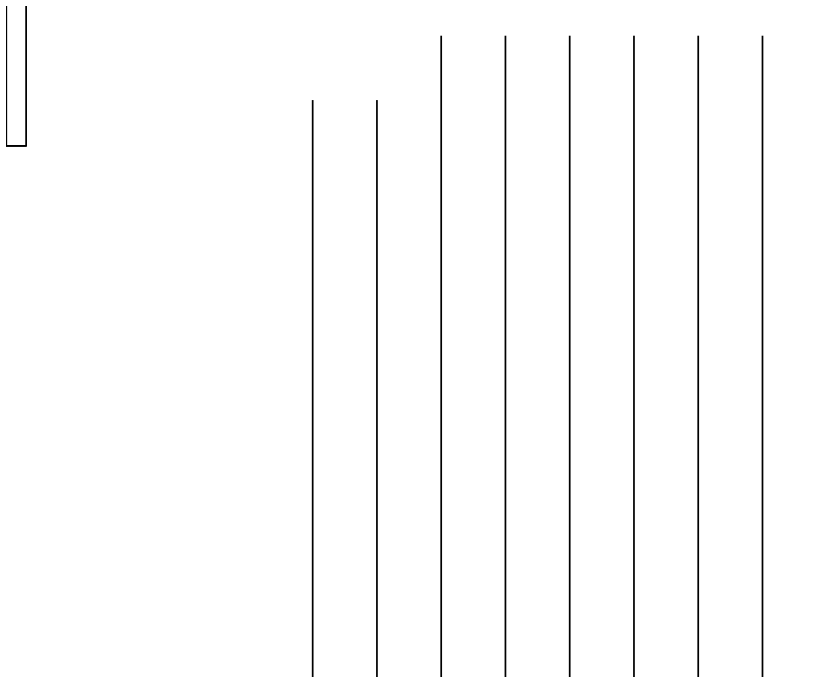
### (1) Wavelength Characteristics



## (2) Relative Radiation Flux-IF

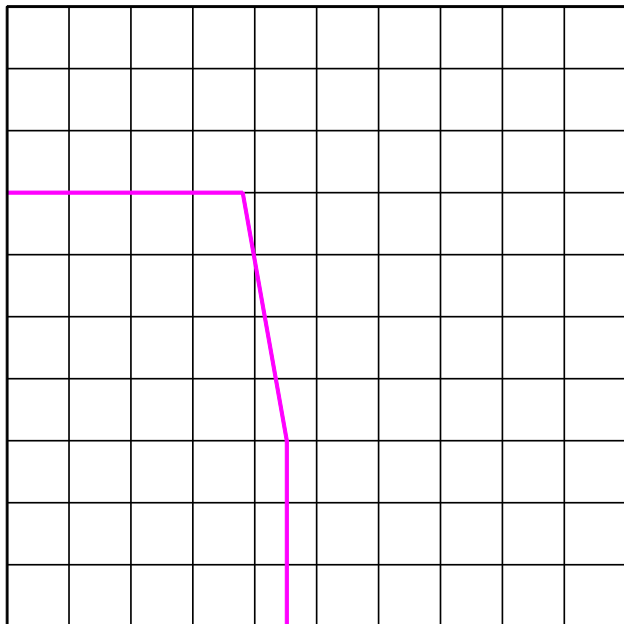


## (3) Relative IF-VF

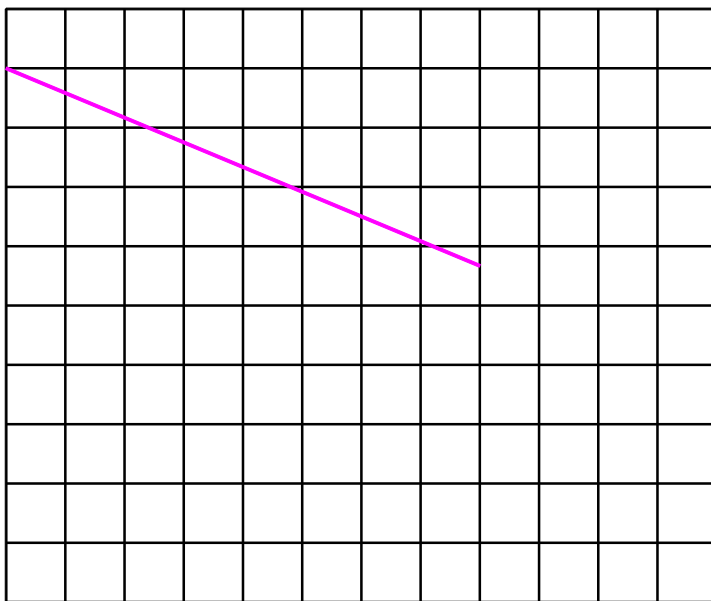




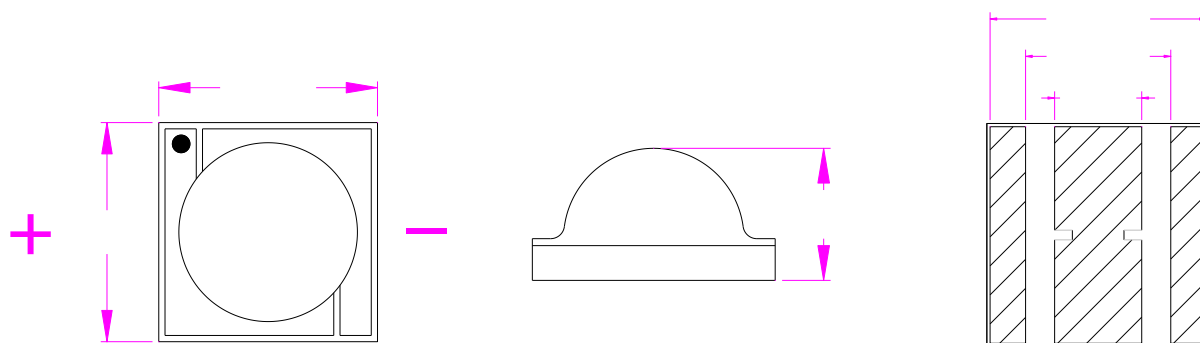
#### (4) Allowable Forward Current-Ta



#### (5) Radiation Flux-Ta



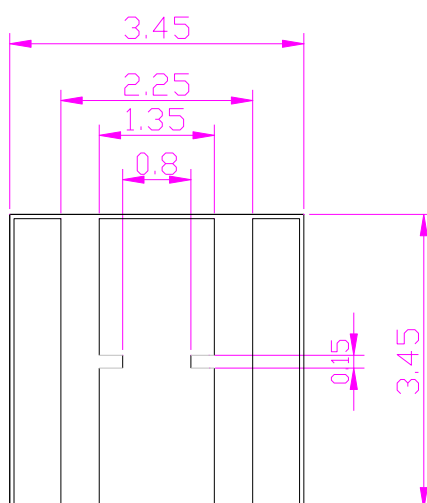
## Package Dimensions



### Notes :

1. All dimension units are millimeters.
2. All dimension tolerance is  $\pm 0.1$ mm unless otherwise noted.  
 $\pm 0.1$

## Welded plate Dimensions



### Notes :

When the circuit configuration is not affected, suggested the increase in the middle of the copper area, or the connection between the middle and the pad and the negative electrode can improve the cooling performance of the product. It is recommended to use 1 mm thickness of steel mask.

1mm

## Label

TYPE: XXXXXXXXXX

QTY: XXXXX

VF: Forward voltage rank

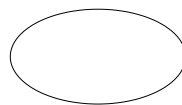
e: Radiation Flux rank

IF: XXXX

$\lambda_p$ : Peak Wavelength

DATE: XXXX

LOT.NO:Lot Number



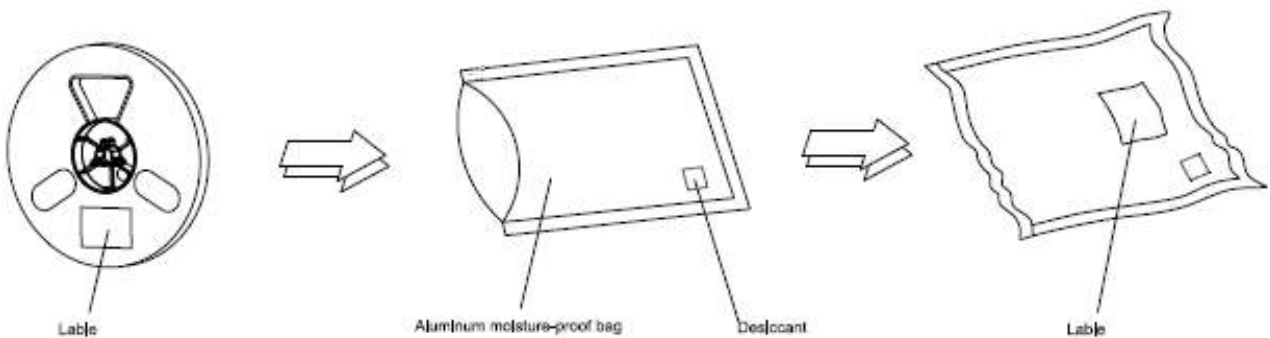
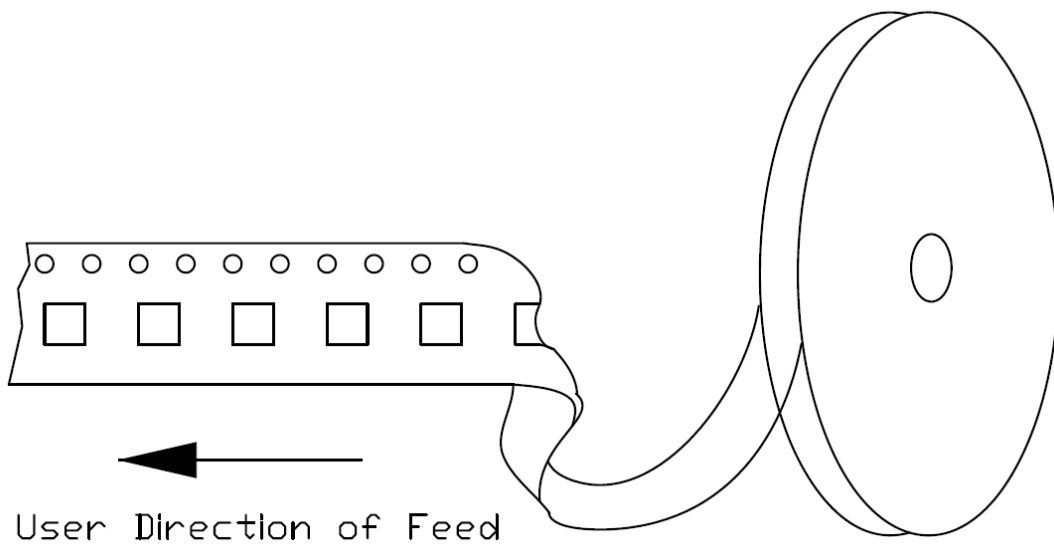
e  
P

## Tape Specifications(Units:mm)

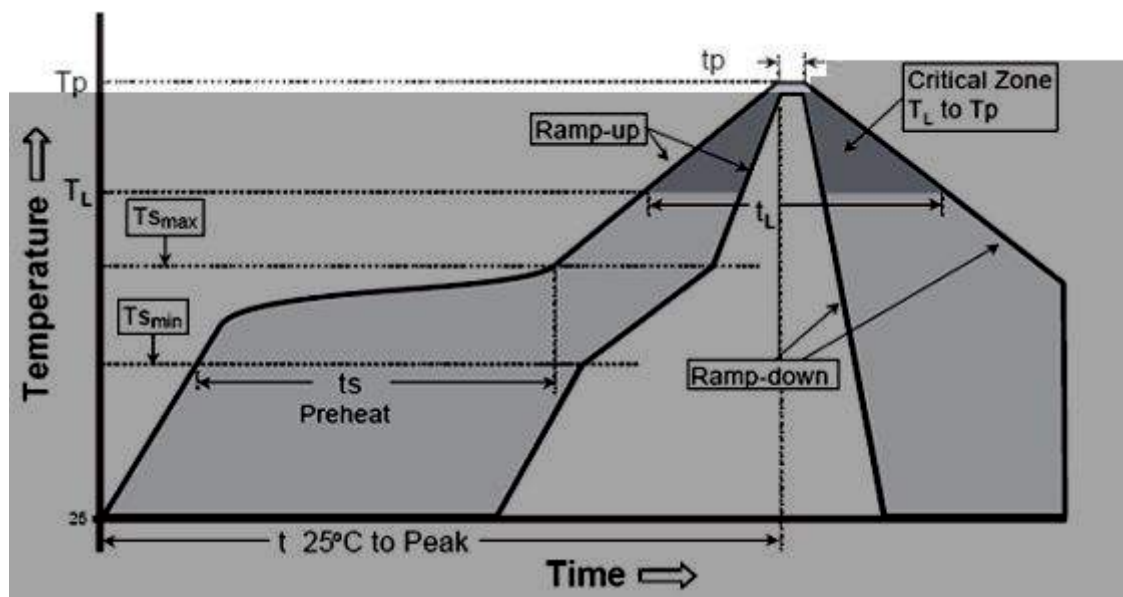
(                      (                      )                      **1000 pcs/**

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## Reflow soldering instructions



Profile Feature	Lead-Based solder	Lead-Free Solder
Average Ramp-Rate (Ts <sub>max</sub> to Tp)	3 °C/second max	3 °C/second max
Preheat: Temperature Min (Ts <sub>min</sub> )	100	150
Preheat: Temperature Max (Ts <sub>max</sub> )	150	200
Preheat: Time (ts <sub>min</sub> to ts <sub>max</sub> )	60-120 seconds	60-180 seconds
Time Maintained Above: Temperature (TL)	183	217
Time Maintained Above: Time (tL)	60-150 seconds	60-150 seconds
Peak/Classification Temperature (Tp)	215	260
Time Within 5 °C of Actual Peak Temperature (tp)	10-15 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

1. recommend to use a convection type reflow machine with 8 zones.

145°-165°-185°-210°-220°-240°-260°-240° 90cm/min

2. recommend to use Lead-Free Paste with a melting point between 210 °C - 220 °C.

3. the reflow soldering time should not be more than 360s. all temperature means the temperature measured on the surface of the package body.

360s

4. When using hot plate, the temperature is no more than 260 °C, the time is not more than 5 seconds.

260

5

## 使用注意事项

(storage)

5-30 ℃

60%

LED

24H

60 ℃±5 ℃ 12H

To avoid moisture, we recommend storage conditions for the unopened LED +5 ~ +30 ℃, relative humidity <60%. LED should be used within 168 Hrs. of opening the package. Please make sure to dehumidify and vacuum pack the remaining/ unused LED. Dehumidifying condition: +120 ℃ ±5 ℃, 04 Hrs. Effective age for the sealed led is one year.

(the assembly notes)

260 ℃.

1000g

**Soldering Conditions** This product must be used reflow soldering practices, the maximum temperature of reflow should not exceed 220 ℃. Please make sure when soldering, there is no external force on the soldering surface (such as pressure, friction or sharp metal nails, etc.), to avoid gold wire deformation or damage and other abnormalities.

If beyond recommended conditions, we cannot guarantee the LED stability, please do the risk assessment first.

(anti-Static Measures)

Please take adequate measures to prevent electrostatic generation, such as wearing electrostatic ring or anti-static fingerstall etc; any relative products like plant equipment, machinery, carrier and transportation units shall be connected to discharging unit/ ground. After assembly, please make sure to discharge Static Electricity with proper ESD equipment.

(temperature Control)

500V

During assembly, please ensure that a good quality thermal paste is applied and distributed evenly over the surface. While using thermal pad (Heat Sink), make sure LED is firmly tightened and there is no gap between surfaces. The need to ensure the cooling medium dielectric withstand test at least through 500V.

(drive control)

Drive this product at constant current. Output current range specifications should be according to the operational and other conditions, as mentioned in data sheet. Before using a constant voltage source or altered specifications, other than recommended, please consider risk factors.

(other)

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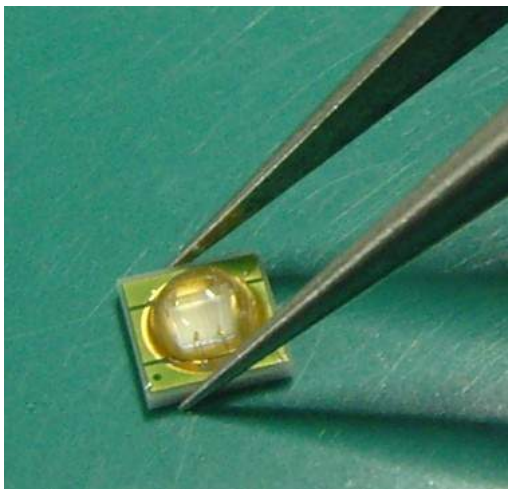
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( Cl<sub>2</sub>, H<sub>2</sub>S NH<sub>3</sub> SO<sub>x</sub> NO<sub>x</sub>

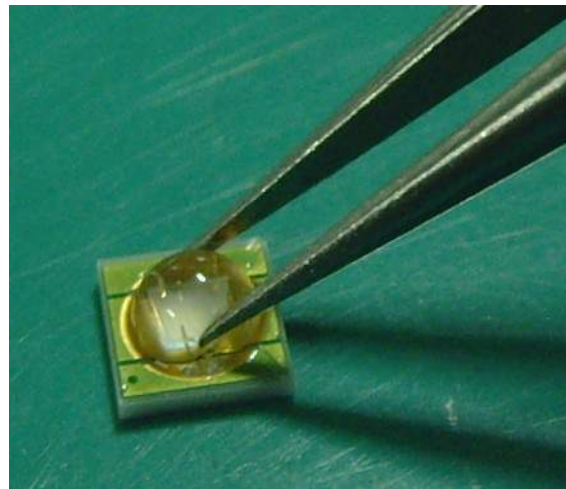
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Product is not suitable to use in following conditions;

- Direct or indirect wet / damp conditions, such as rain, etc;
- in contact with sea water and erosive materials;
- Exposed to corrosive gases (e.g., Cl<sub>2</sub>, H<sub>2</sub>S, NH<sub>3</sub>, SO<sub>x</sub>, NO<sub>x</sub>, etc.);
- Exposed to dust, liquids or oils;



OK



NG

## Notes 注

- 1.\* All high power emitter LED products mounted on aluminum metal-core printed circuit board, can be lighted directly, but we do not recommend lighting the high power products for more than 5 seconds without a appropriate heat dissipation equipment.

LED

LED 5

- 2.Reflow soldering should not be done more than two times The reflow temperature we recommend is 260°C, When the temperature exceeds 260 , the product failure of LED can be caused

260

260

LED