

Shvabe Opto-Electronics (Meizhou) Co., Ltd  
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# DATASHEET

Product LED  
Model S-3528GC-T30  
Lens Color Water Clear  
Source Color Green  
Date 14.03.2017  
Version 1.0

**FOR REFERENCE ONLY**

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Shvabe Opto-Electronics (Meizhou) Co., LTD

Post address:

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Guangdong Province, China



Management:

CEO of Shvabe Opto-Electronics (Meizhou) Co., LTD - Danil Fomchenko

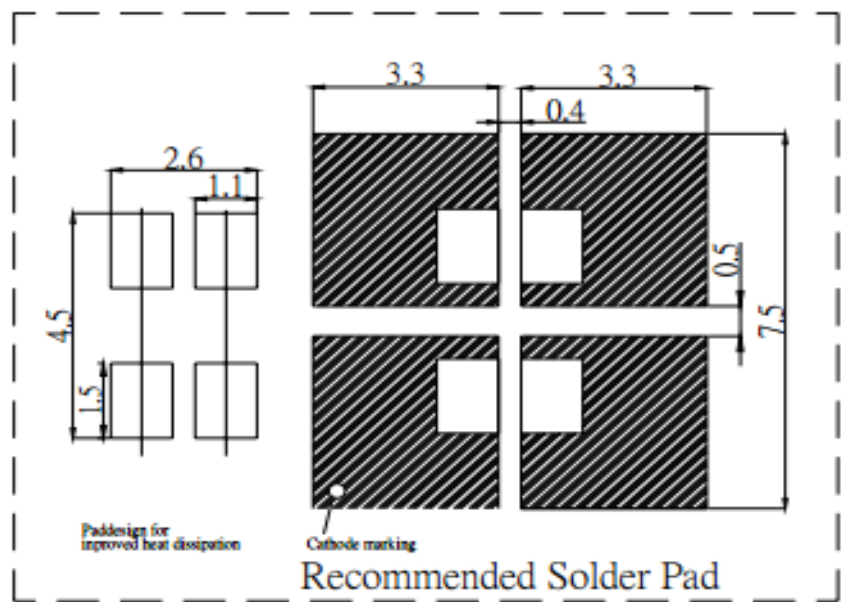
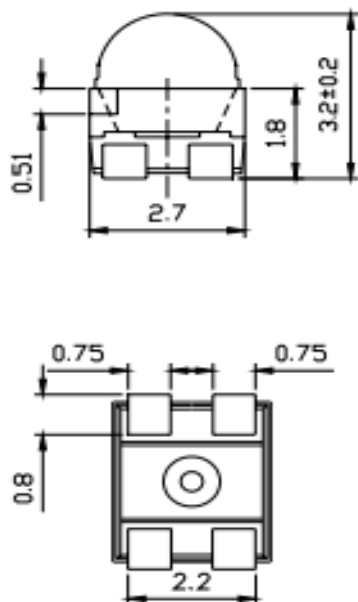
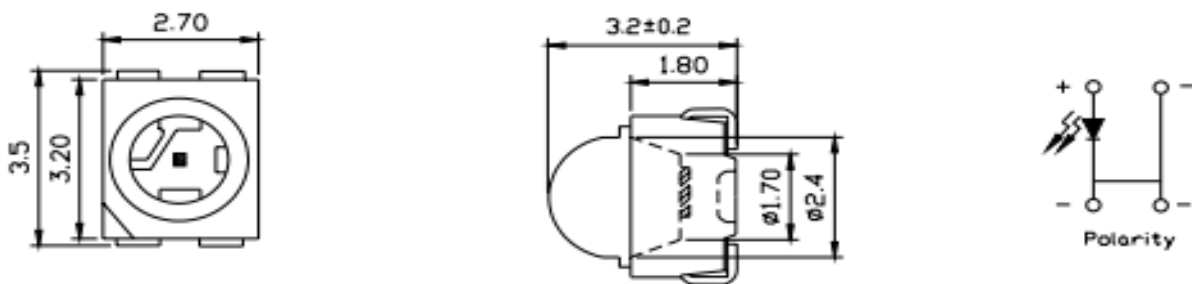
**Applications:**

- 1) Traffic lights
- 2) Backlighting
- 3) Marker lights
- 4) Substitution of micro incandescent lamp
- 5) Interior and exterior automotive lighting

**Appearance:**



**Dimensions:**



**Notes:**

- 1. All dimensions are in millimeters.
  - 2. Tolerance is  $\pm 0.20\text{mm}$  unless otherwise noted.
  - 3. Protruded resin under flange is 1.0mm max
  - 4. Lead spacing is measured where the leads emerge from the package.
  - 5. Caution in ESD: Static Electricity and surge damages the LED. It is recommend to use a wrist band or anti-electrostatic glove when handling the LED.
- All devices, equipment and machinery must be properly grounded.

**Absolute Maximum Ratings at Ta=25°C**

Items	Symbol	MAX.	Unit
Power Dissipation	P <sub>D</sub>	130	mW
Peak Forward Current	I <sub>FP</sub>	100	mA
Continuous Forward Current	I <sub>F</sub>	30	mA
Operating Temperature	T <sub>opr</sub>	-40~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40~ +100	°C
Lead Soldering Temperature	T <sub>slid</sub>	+235~ +240 for 5 seconds	°C

**Electrical / Optical Characteristics at Ta=25°C (If=20mA only)**

Items	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	IV	5000	6000	7000	mcd	If=20mA
Viewing Angle	2θ1/2	25	30	35	Deg	If=20mA
Dominant Wavelength	λd	500	505	510	nm	If=20mA
Forward Voltage	VF	2.9	3.2	3.45	V	If=20mA
Reverse Current	IR	---	---	10	μA	VR=5V

**Notice:**

1) The tolerance of intensity:±15%, The tolerance of wave length:±1nm,The tolerance of forwards voltage: ±0.05V. Only reference for above data when testing.

2) The parameters of "Forward Voltage" have not relation with parameters of "Luminous Intensity", "Viewing Angle" and "Dominant Wavelength". Specified parameters of the voltage is independent of them.

**Additional testing results (for reference only)**

Forward Current	mA	10	15	20	25	30	40	50
Forward Voltage	V	2,83	2,98	3,07	3,16	3,24	3,45	3,54
Luminous Intensity	mcd	3261	5404	5488	6590	7910	10137	10561

**Notice:**

1. Suggest current is 20mA
2. If work at max 20mA, the guaranty working is 2 years

**Typical Electrical / Optical Characteristics Curves**

at Ta=25°C Unless Otherwise Noted

Figure №1

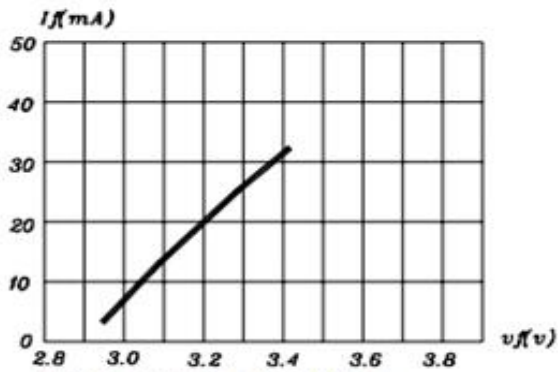


Fig.1 Forward current vs. Forward Voltage

Figure №2

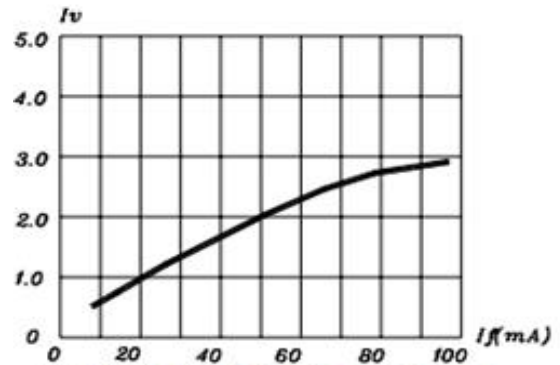


Fig.2 Relative luminous Intensity vs. Forward Current

Figure №3

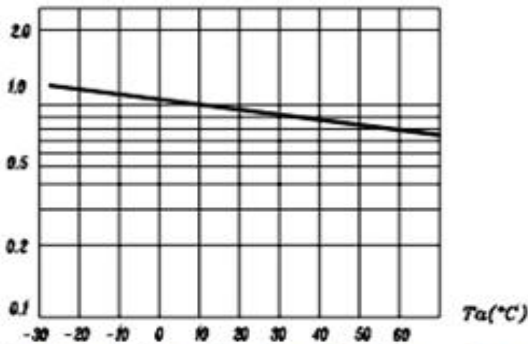


Fig.3 Relative luminous Intensity vs. Ambient Temperature

Figure №4

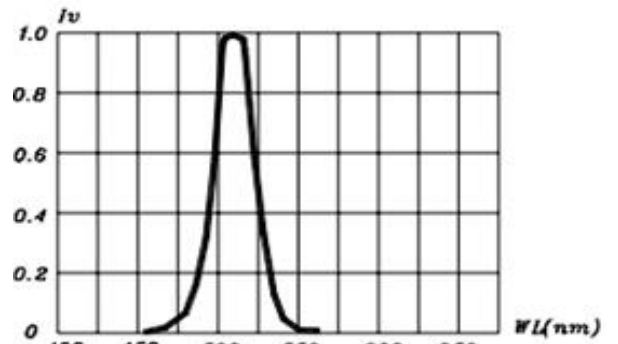


Fig.4 Relative luminous Intensity vs. Wavelength

Figure №5

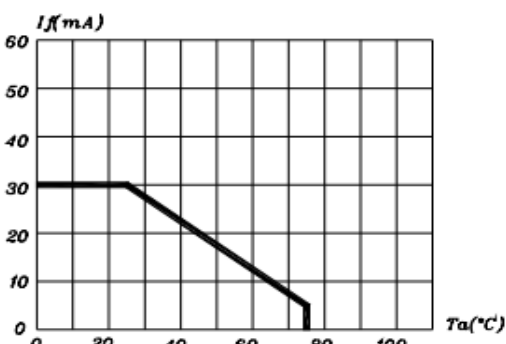
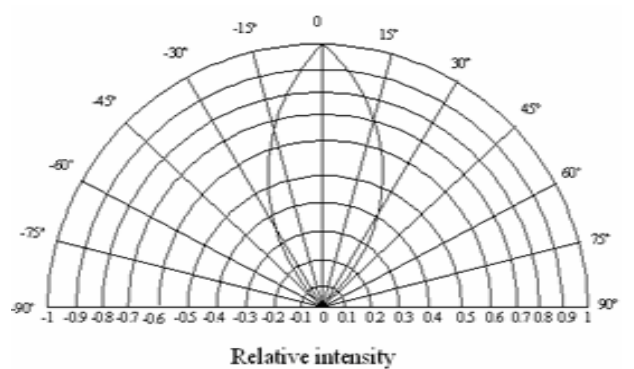


Fig.5 Maximum Forward Current vs. Ambient Temperature

Figure №6



**Explanation:**

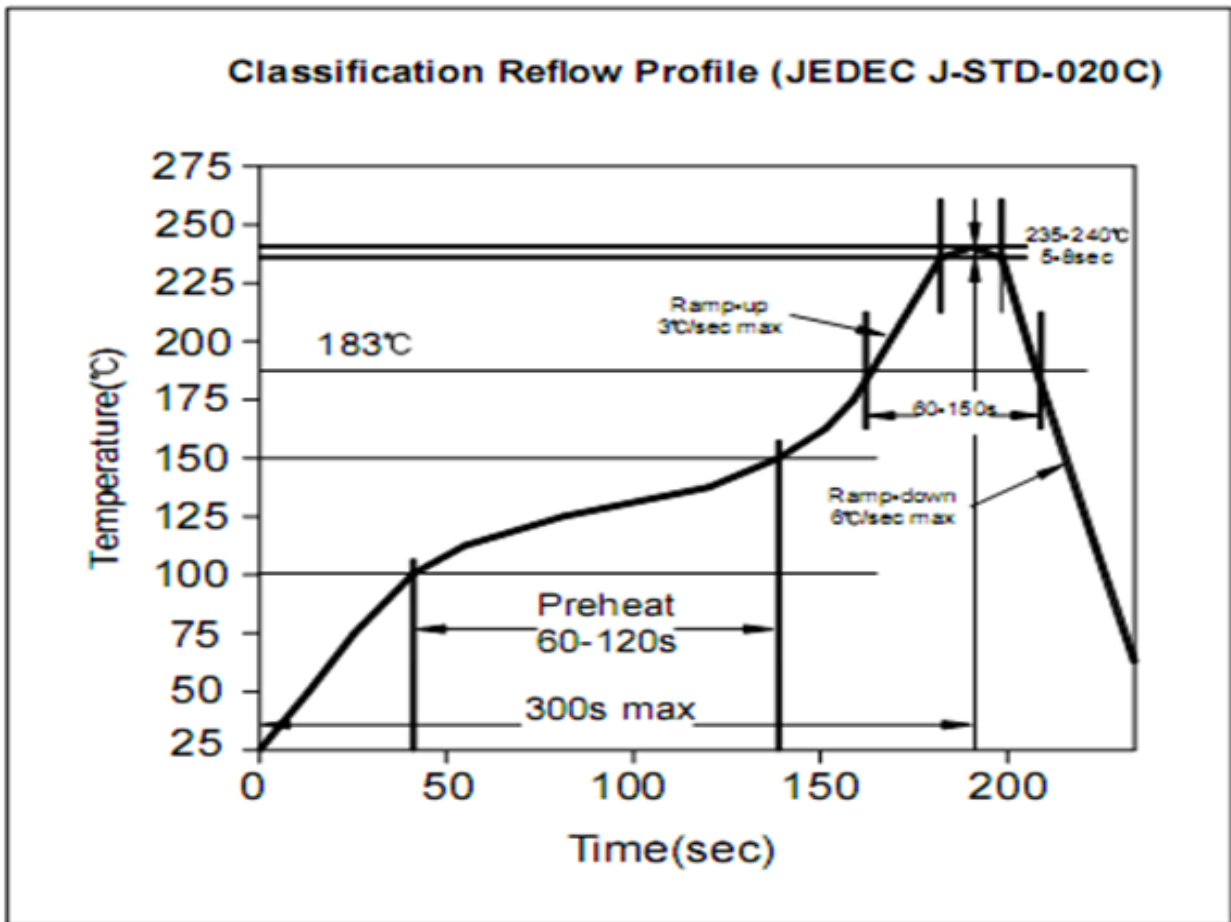
№2 figure: Different current has different percent of brightness. 1.0 is nominal - 20mA.

№3 figure: When LED in non-operating state, the luminous intensity changes due to the ambient temperature.

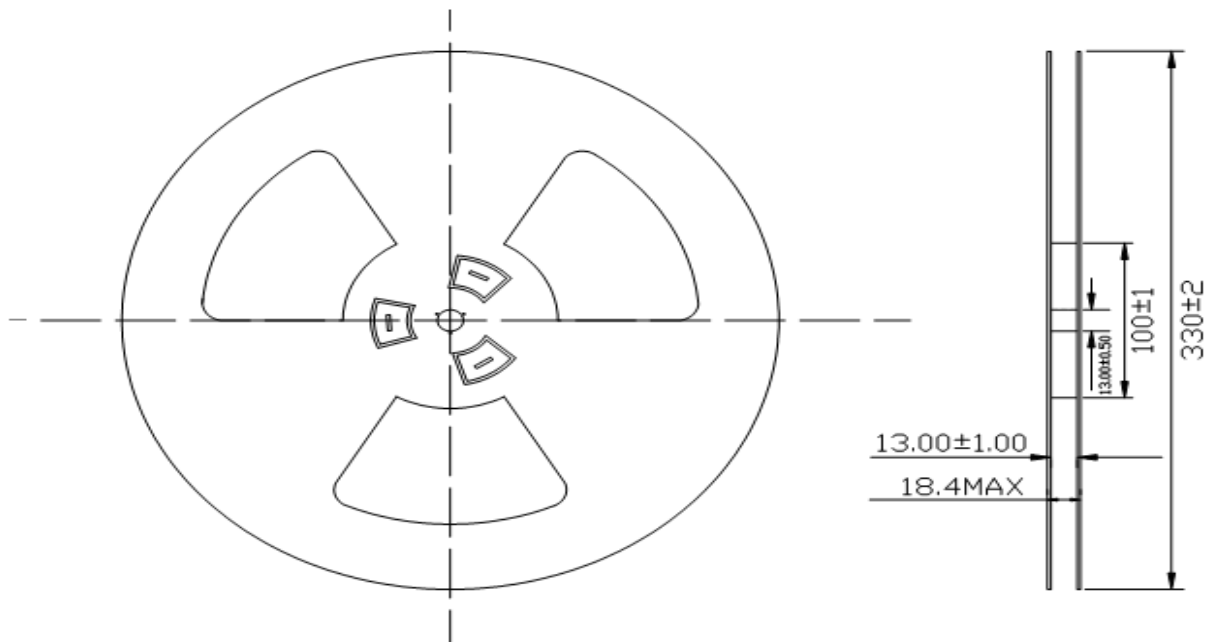
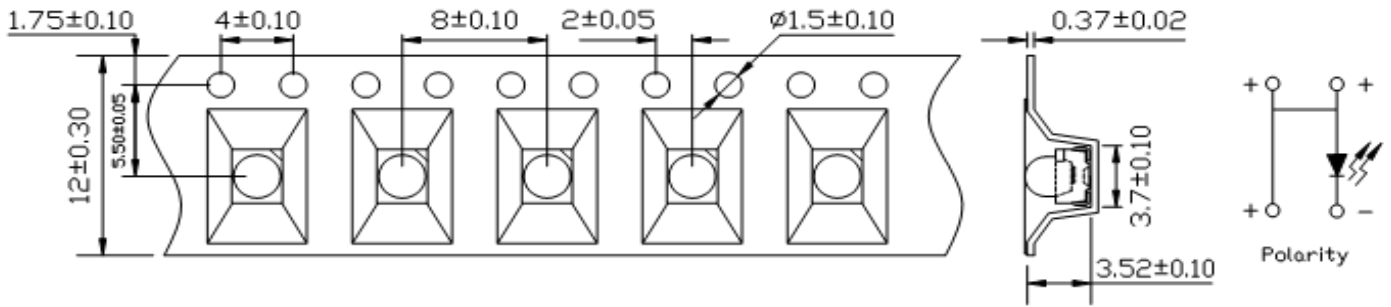
№5 figure: The higher ambient temperature, the lower operating current.

Soldering Profile

Lead Solder



**Packing Specification**



Dimensions are specified as follows: mm

Normal packing quantity: 2 000 pcs/reel

**Suggested Way of Usage:**

The using of the LED are limited by current.

Recommended forward current is 20mA, the lifespan more 2 years.

The maximum forward current is 30mA. More than 20mA, lifespan will be reduced.