

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

Product LED  
Model S-5443RC28  
Lens Color Water Clear  
Source Color Red  
Date 14.03.2017  
Version 1.0

**FOR REFERENCE ONLY**

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Shvabe Opto-Electronics (Meizhou) Co., LTD

Post address:

Shvabe Opto-Electronics (Meizhou) Co., Ltd  
No.4-1F, Xinlong Industrial Pard,  
Gongyeyi Road, Dawangshan, Shajing Street,  
Baoan District, 518104, Shenzhen City,  
Guangdong Province, China



Management:

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

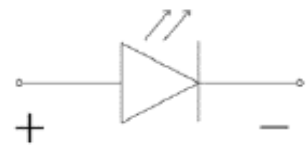
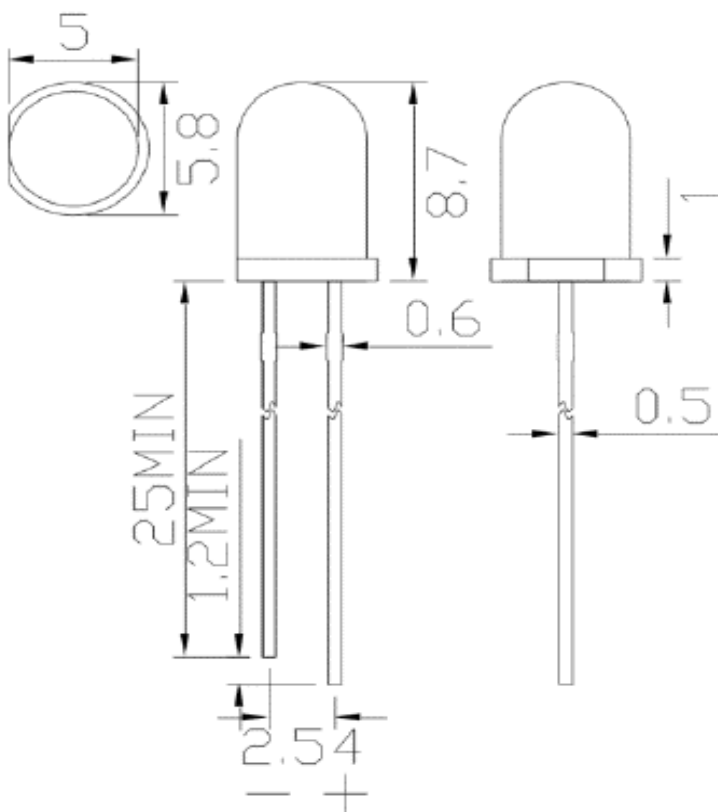
**Applications:**

- 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>	66	mW
Peak Forward Current	I <sub>FP</sub>	60	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~ +85	°C
Lead Soldering Temperature	T <sub>sl</sub>	+260 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	4000	5000	6000	mcd	If=20mA
Viewing Angle	2θ1/2	-	20	-	Deg	If=20mA
Dominant Wavelength	λd	620	-	625	nm	If=20mA
Forward Voltage	VF	1,8	2,0	2,2	V	If=20mA
Reverse Current	IR	---	---	5	μA	VR=5V

**Notice:**

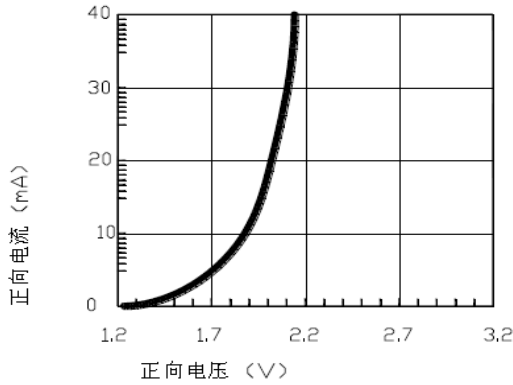
- 1) Nominal is 10mA.
- 2) Recommended forward current is 10mA, the lifespan more 2 years. More than 10mA, lifespan will be reduced.
- 3) The tolerance of intensity:±15%, The tolerance of wave length:±1nm,The tolerance of forwards voltage: ±0.05V. Only reference for above data when testing.
- 4) The 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.

**Typical Electrical / Optical Characteristics Curves**

at Ta=25°C Unless Otherwise Noted

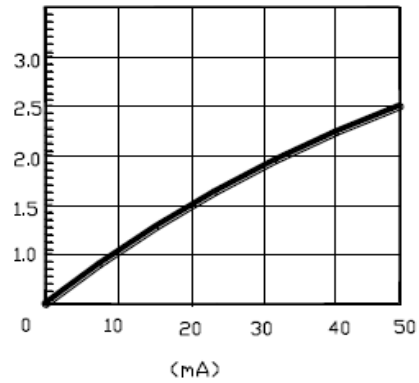
**Figure №1**

Forward Current Vs. Forward Voltage



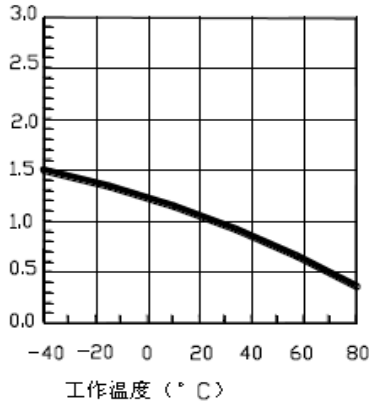
**Figure №2**

Forward Current vs. Relative Luminous Intensity



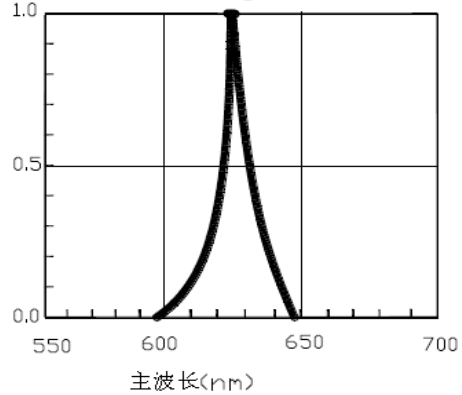
**Figure №3**

Relative Luminous Intensity vs. Ambient Temperature



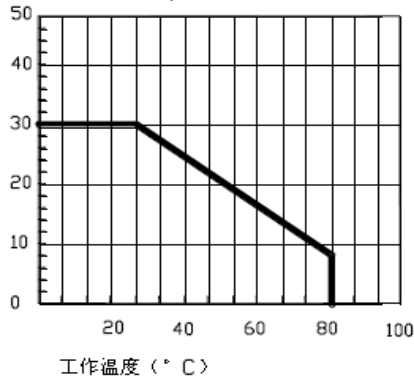
**Figure №4**

Relative Luminous Intensity Vs. Main wavelength



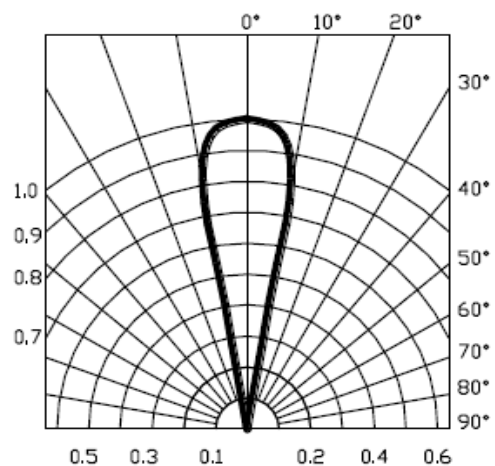
**Figure №5**

Forward Current vs. Ambient Temperature



**Figure №6**

Radiation Diagram



**Explanation:**

**№2 figure:** Different current has different percent of brightness. 1.0 is nominal - 10mA.

**№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.