

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

Product LED
Model S-5443YC28
Lens Color Water Clear
Source Color Yellow
Date 14.03.2017
Version 1.0

FOR REFERENCE ONLY

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

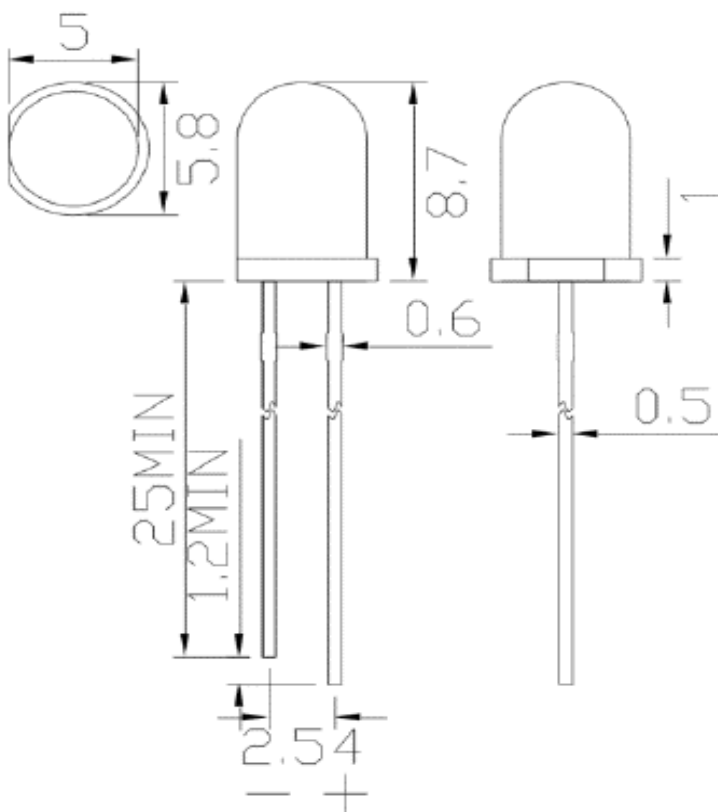
Applications:

- 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 ± 0.20 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 _D	66	mW
Peak Forward Current	I _{FP}	60	mA
Continuous Forward Current	I _F	30	mA
Operating Temperature	T _{opr}	-40~ +85	°C
Storage Temperature	T _{stg}	-40~ +85	°C
Lead Soldering Temperature	T _{sl}	+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	588	-	595	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

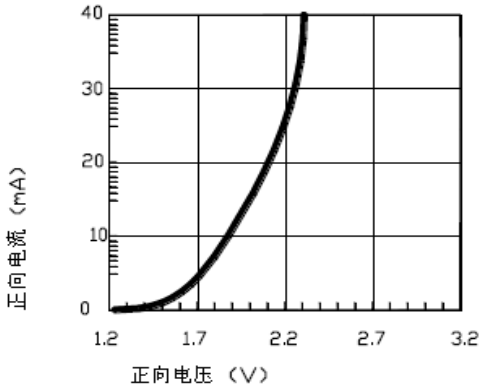


Figure №2

Forward Current vs. Relative Luminous Intensity

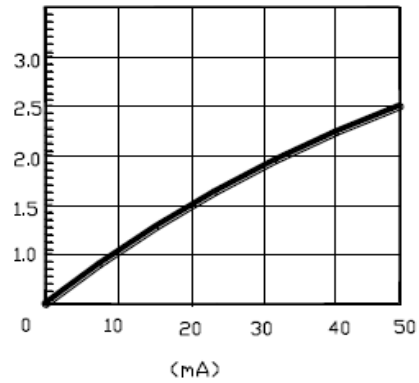


Figure №3

Relative Luminous Intensity vs. Ambient Temperature

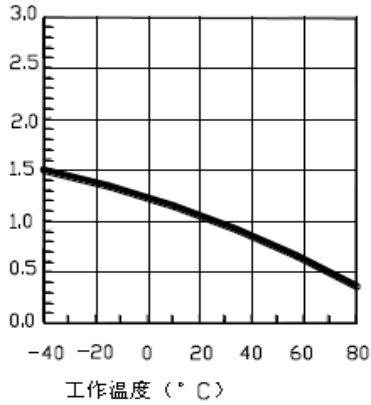


Figure №4

Relative Luminous Intensity Vs. Main wavelength

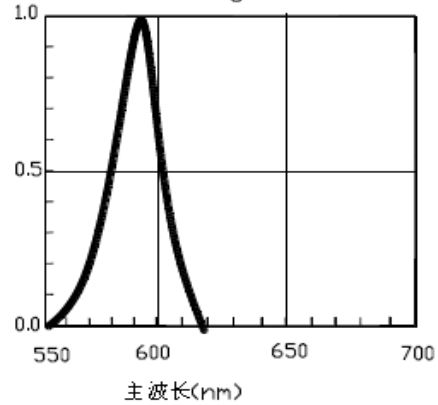


Figure №5

Forward Current vs. Ambient Temperature

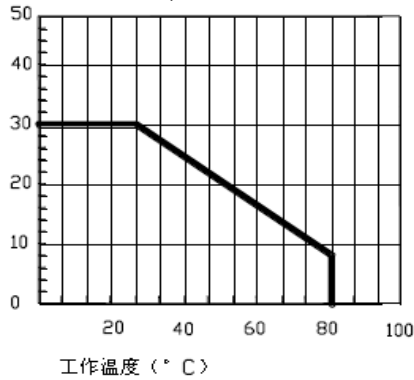
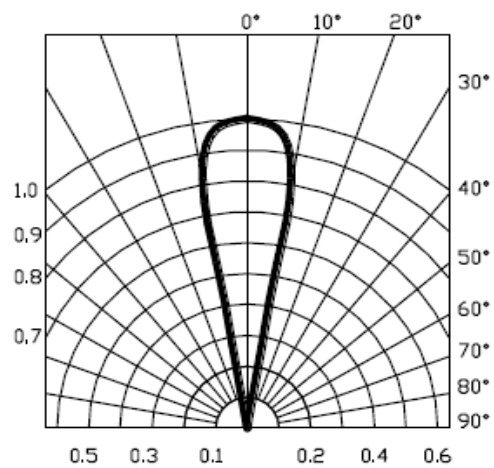


Figure №6

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.