EH-503SURD

Features

Choice of various viewing angles

Available on tape and reel.

Reliable and robust

Pb free

The product itself will remain within RoHS compliant version.

Compliance with EU REACH

Compliance Halogen Free .(Br <900 ppm ,Cl <900 ppm , Br+Cl < 1500 ppm)

Description

The series is specially designed for applications requiring higher brightness

The led lamps are available with different colors, intensities.

Applications

TV set

Monitor

Telephone

Computer

Health care

Device Selection Guide

Chip Materials	Emitted Color	Resin Color	Manufacturer	Update date
AlGaInp	Red	Red	EHAOAN	2015.08.17

Absolute Maximum Ratings (Ta=25℃)

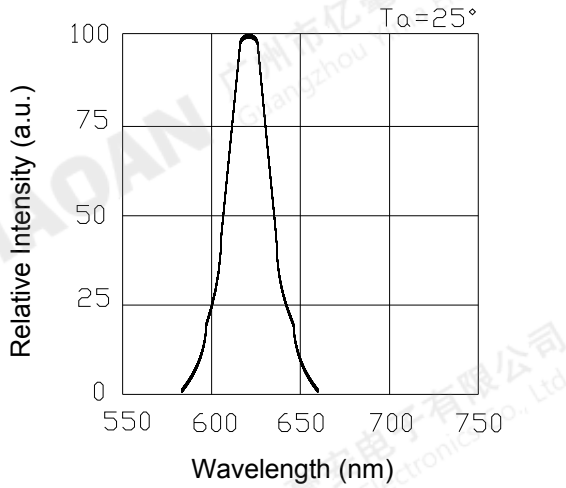
Parameter	Symbol	Rating	Unit
Continuous Forward Current	I_F	25	mA
Peak Forward Current (Duty 1/10 @ 1KHZ)	I_{FP}	60	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_d	60	mW
Operating Temperature	T_{opr}	-40 ~ +85	℃
Storage Temperature	T_{stg}	-40 ~ +85	℃
Soldering Temperature	T_{sol}	260 ℃ for 5 sec.	

Electro-Optical Characteristics (Ta=25℃)

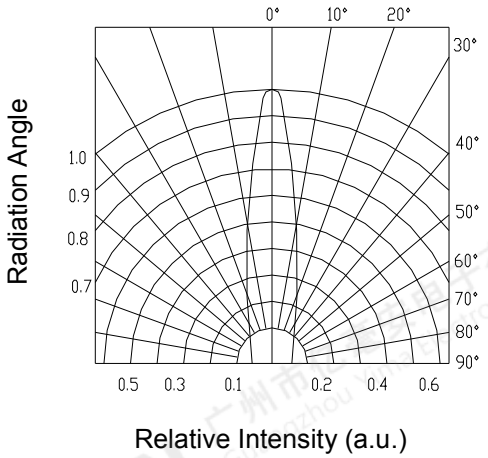
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I_v	100	200	-----	mcd	IF=20mA
Viewing Angle	2θ1/2	-----	30	-----	deg	IF=20mA
Peak Wavelength	λ_p	-----	632	-----	nm	IF=20mA
Dominant Wavelength	λ_d	-----	624	-----	nm	IF=20mA
Spectrum Radiation Bandwidth	$\Delta\lambda$	-----	20	-----	nm	IF=20mA
Forward Voltage	V_F	1.7	2.0	2.4	V	IF=20mA
Reverse Current	I_R	-----	-----	10	μA	VR=5V

Typical Electro-Optical Characteristics Curves

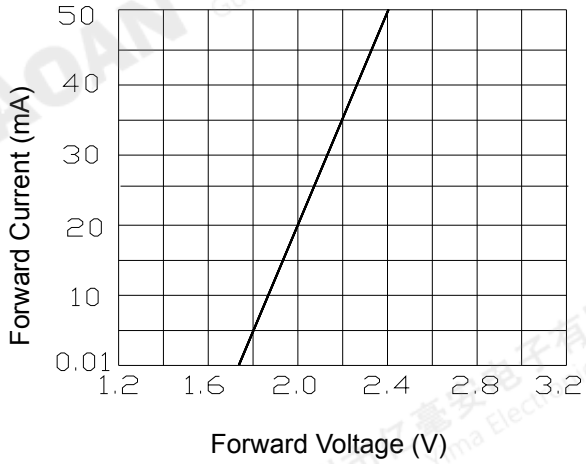
Relative Intensity vs. Wavelength (Ta=25℃)



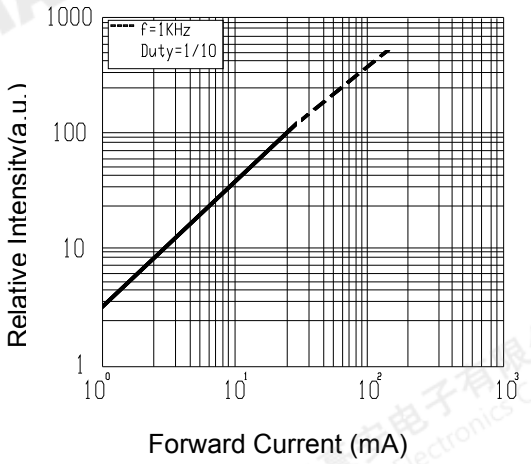
Directivity (Ta=25℃)



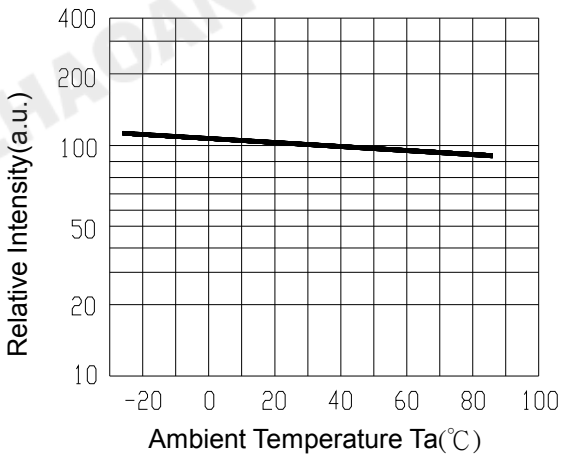
Forward Current vs. Forward Voltage (Ta=25℃)



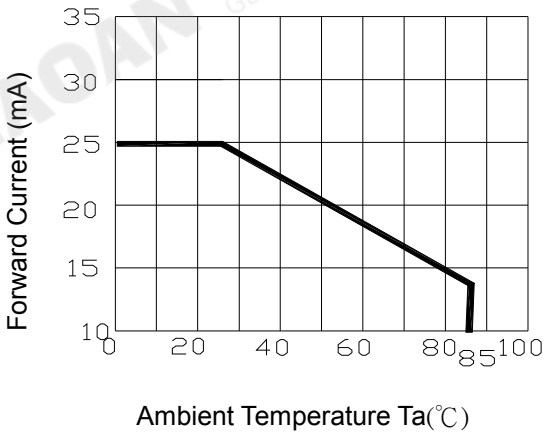
Relative Intensity vs. Forward Current (Ta=25℃)



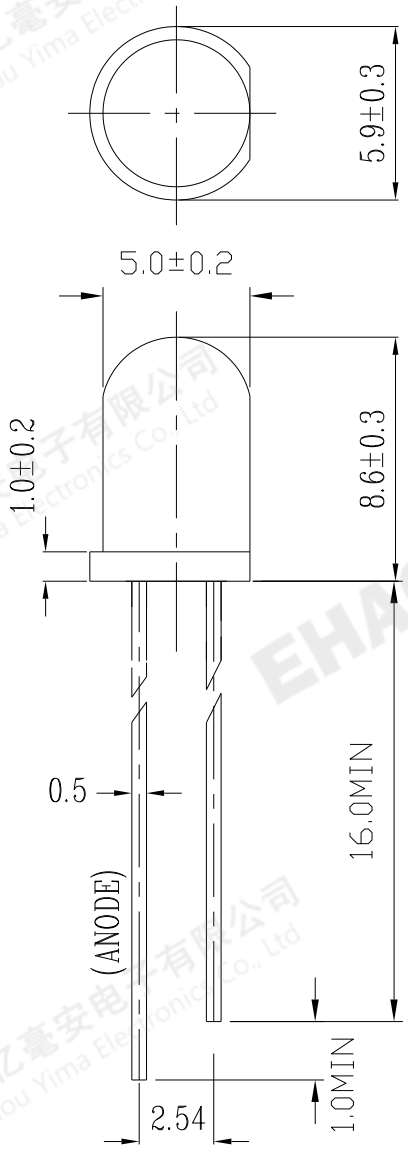
Relative Intensity vs. Ambient Temp.



Forward Current vs. Ambient Temp.



Package Dimension



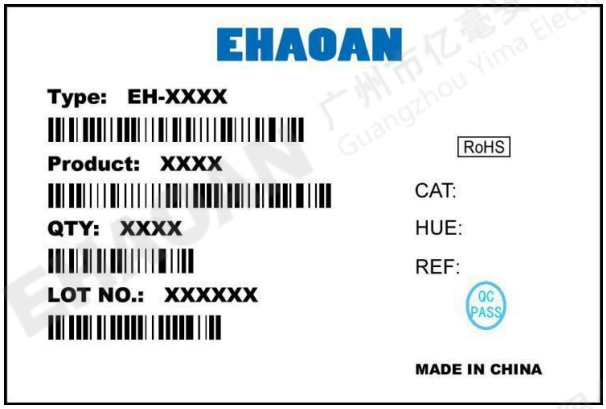
Note:

1.All dimensions are in millimeters

2.The height of flange must be less than 2.5mm(0.059").

3.Without special declared, the tolerance is ±0.25mm.

Moisture Resistant Packing Materials



CAT：Luminous Intensity Rank（unit : mcd）

HUE：Dominant Wavelength Rank（unit : nm）

REF：Forward Voltage Rank （unit : V）

Rank Tolerance:

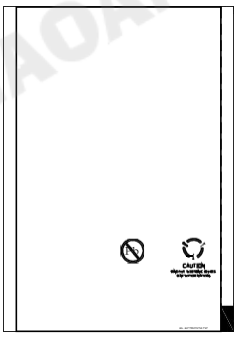
a. Luminous Intensity: ± 15%

b. HUE: ±1nm

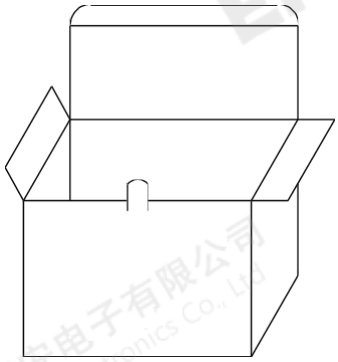
c. Forward Voltage: ± 0.1V

Packing Specification

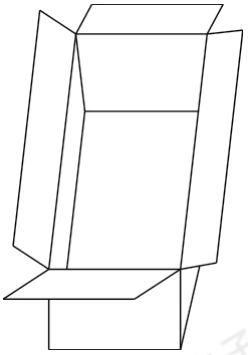
■ Anti-electrostatic bag



■ Inner Carton



■ Outside Carton



Packing Quantity

1.500 PCS/1 Bag, 4 Bags/1 Inner Carton

2. 10 Inner Cartons/1 Outside Carton

LED MOUNTING METHOD

1.The lead pitch of the LED must match the pitch of the mounting holes on the PCB during component placement. Lead- forming may be required to insure the lead pitch matches the hole pitch.

Refer to the f igure below for proper lead forming procedures.(fig.1)

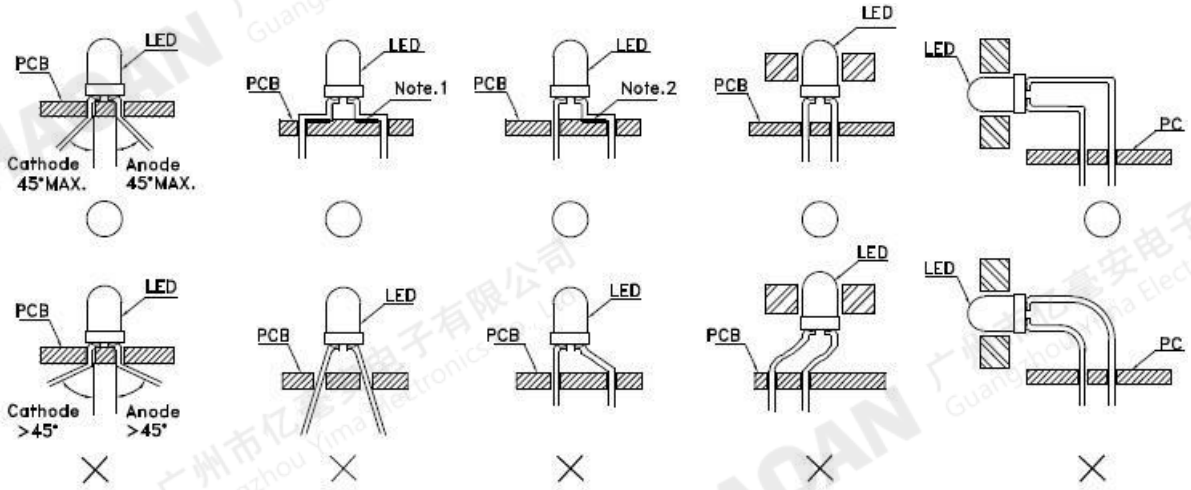


Figure 1

"○" Correct mounting method, "×" Incorrect mounting method , Note 1- 2 : Do not route PCB Trace in the contact area between the leadframe and the PCB to prevent short- circuit.

2. When soldering wire to the LED, use individual heat- shrink tubing to insulate the exposed leads to prevent accidental contact short-circuit (Fig. 2)

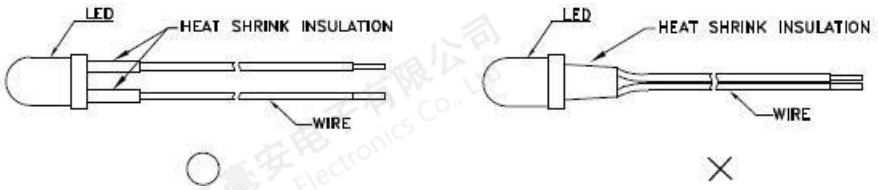


Figure 2

3.Use stand- offs (Fig. 3) or spacers (Fig. 4) to securely position the LED above the PCB.

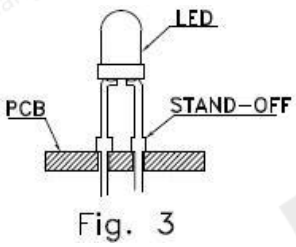


Fig. 3

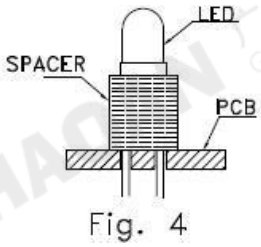


Fig. 4

LEAD FORMING PROCEDURES

1.Maintain a minimum of 2mm clearance between the base of the LED lens and the fi rst lead bend (Fig. 5 and Fig. 6).

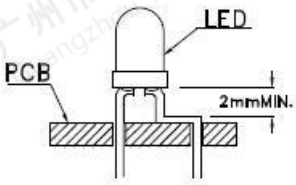


Fig. 5

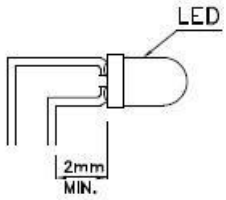


Fig. 6

2.Lead forming or bending must be performed before soldering, never during or after soldering.

3.Do not stress the LED lens during lead- forming in order to fractures in the lens epoxy and damage the internal structures.

4.During lead forming, use tools or jigs to hold the leads securely so that the bending force will not be transmitted to the LED lens and its internal structures. Do not perform lead forming once the component has been mounted onto the PCB (Fig. 7) .

5.Do not bend the leads more than twice(Fig. 8)

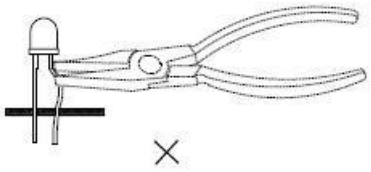


Fig. 7

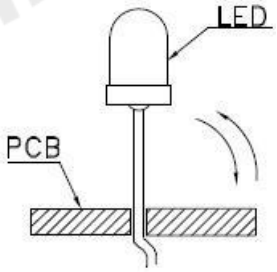


Fig. 8

6.After soldering or other high- temperature assembly, allow the LED to cool down to 50 ℃ before applying force (Fig. 9). In general, avoid placing excess force on the LED to avoid damage. For any questions please consult with LIGHT representative for proper handling procedures

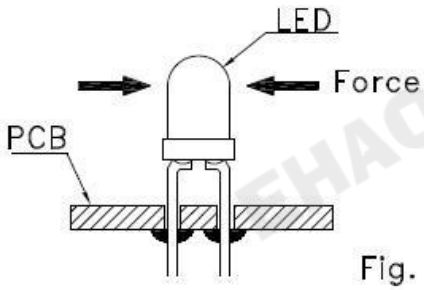


Fig. 9