

**High Brightness LED Lamp** 

unit: mm

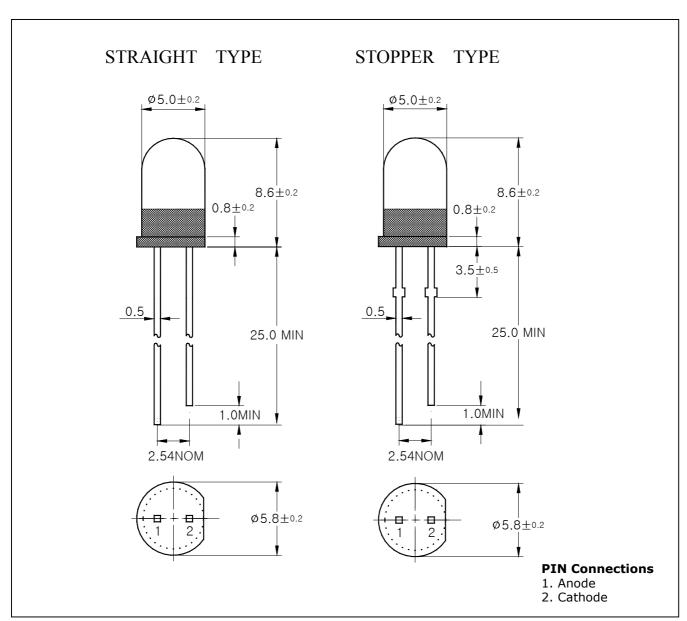
#### **Features**

- Colorless transparency lens type
- \$\phi 5mm(T-13/4) all plastic mold type
- Super luminosity

### **Application**

- Traffic Signal
- Massage Board

### **Outline Dimensions**



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# SHE123BGH / SHE123BGH-(B)

Absolute maximum ratings

Characteristi c	Symbol	Ratings	Unit	
Power Dissipation	$P_{D}$	160	mW	
Forward Current	${ m I}_{\sf F}$	40	mA	
*1Peak Forward Current	${ m I}_{\sf FP}$	65	mA	
Reverse Voltage	$V_R$	4	V	
Operating Temperature	$T_{opr}$	-30~80	$^{\circ}$ C	
Storage Temperature	$T_{stg}$	-30~100	$^{\circ}$ C	
*2Soldering Temperature	T <sub>sol</sub>	260℃ for 5 seconds		

<sup>\*1.</sup>Duty ratio = 1/16, Pulse width = 0.1ms

<sup>\*2.</sup>Keep the distance more than 2.0mm from PCB to the bottom of LED package



#### \* Recommend document

-. LED is very sensitive to ESD.

#### **Electrical Characteristics**

Ta=25°C

Characteristic	Symbol	<b>Test Condition</b>	Min	Тур	Max	Unit
Forward Voltage	$V_{F}$	I <sub>F</sub> = 20mA	2.7	3.3	3.8	V
* <sup>4</sup> Luminous Intensity	I <sub>V</sub>	I <sub>F</sub> = 20mA	1760	3960	8910	mcd
Peak Wavelength	$\lambda_{\mathrm{P}}$	I <sub>F</sub> = 20mA	-	502	-	nm
Spectrum Bandwidth	Δλ	I <sub>F</sub> = 20mA	-	30	-	nm
Reverse Current	$I_R$	$V_R=4V$	-	-	10	uA
* <sup>3</sup> Half Angle	θ1/2	I <sub>F</sub> = 20mA	-	±15	-	deg

<sup>\*3.</sup>  $\theta$ 1/2 is the off-axis angle where the luminous intensity is 1/2 the peak intensity

<sup>\*4.</sup> Luminous Intensity classification

S	Τ	U	V
1760~2640	2640~3960	3960~5940	5940~8910

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<sup>\*4.</sup> Luminous Intensity Maximum tolerance for each Grade Classification limit is ±18%

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### **Characteristic Diagrams**

Fig. 1  $I_F$  -  $V_F$ 

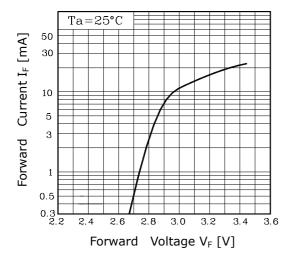


Fig. 3  $I_F$  – Ta

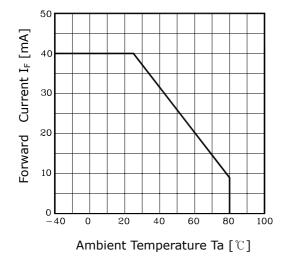
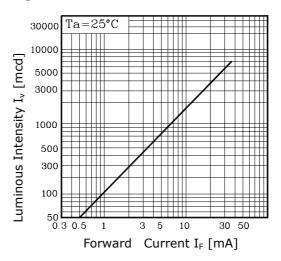


Fig. 2  $I_V - I_F$ 



**Fig.4 Spectrum Distribution** 

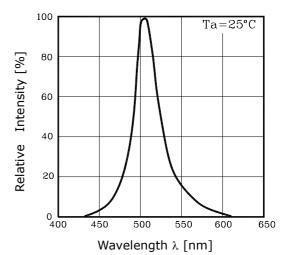
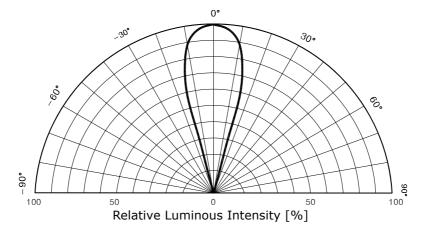


Fig. 5 Radiation Diagram



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