

**High Efficiency LED Lamp** 

unit: mm

#### **Features**

- Yellow-Green Colored lens type
- \$5mm(T-13/4) all plastic mold type
- Super luminosity

## **Application**

- Massage Board
- Variable message signs(VMS)

#### **Outline Dimensions**

STRAIGHT TYPE STOPPER TYPE  $\phi 5.0 \pm 0.2$  $\phi 5.0 \pm 0.2$ 8.6±0.2 8.6±0.2 0.8±0.2  $0.8 \pm 0.2$ 3.5±0.5 0.5 0.5 25.0 MIN 25.0 MIN 1.0MIN 1.0MIN 2.54NOM 2.54NOM  $\phi 5.8 \pm 0.2$  $\phi 5.8 \pm 0.2$ **PIN Connections** 1. Anode 2. Cathode

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# SHE124MD / SHE124MD-(B)

Absolute maximum ratings

Characteristic	Symbol	Ratings	Unit	
Power Dissipation	$P_D$	100	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	$T_{opr}$	-20~85	°C	
Storage Temperature	T <sub>stg</sub>	-30~100	°C	
*2Soldering Temperature	$T_{sol}$	260°C 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



### **Electrical Characteristics**

Ta=25°C

Characteristic	Symbol	<b>Test Condition</b>	Min.	Typ.	Max.	Unit
Forward Voltage	$V_{F}$	I <sub>F</sub> = 20mA	1.6	2.0	2.5	V
* <sup>4</sup> Luminous Intensity	$I_{V}$	I <sub>F</sub> = 20mA	155	350	780	mcd
Peak Wavelength	$\lambda_{\mathrm{P}}$	I <sub>F</sub> = 20mA	-	570	-	nm
Spectrum Bandwidth	Δλ	I <sub>F</sub> = 20mA	-	30	-	nm
Reverse Current	$I_R$	V <sub>R</sub> =4V	-	ı	10	uA
* <sup>3</sup> Half Angle	θ1/2	I <sub>F</sub> = 20mA	-	±20	-	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

М	N	0	Р		
155~230	230~350	350~520	520~780		

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

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## **Characteristic Diagrams**

Fig. 1  $I_F$  -  $V_F$ 

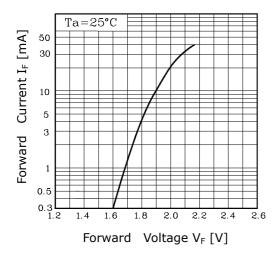


Fig.  $3 I_F - Ta$ 

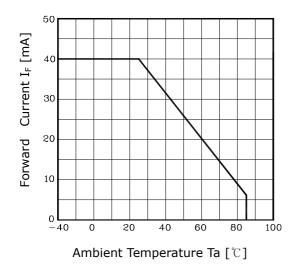


Fig. 2  $I_V$  -  $I_F$ 

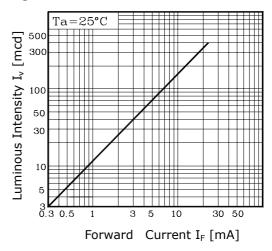


Fig.4 Spectrum Distribution

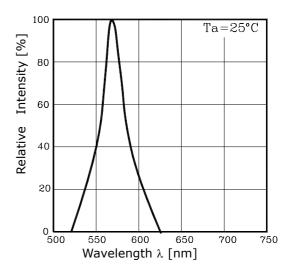
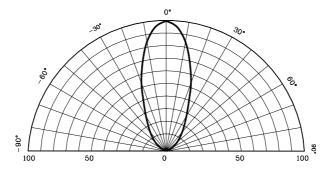


Fig. 5 Radiation Diagram



Relative Luminous Intensity [%]

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