

**Features**

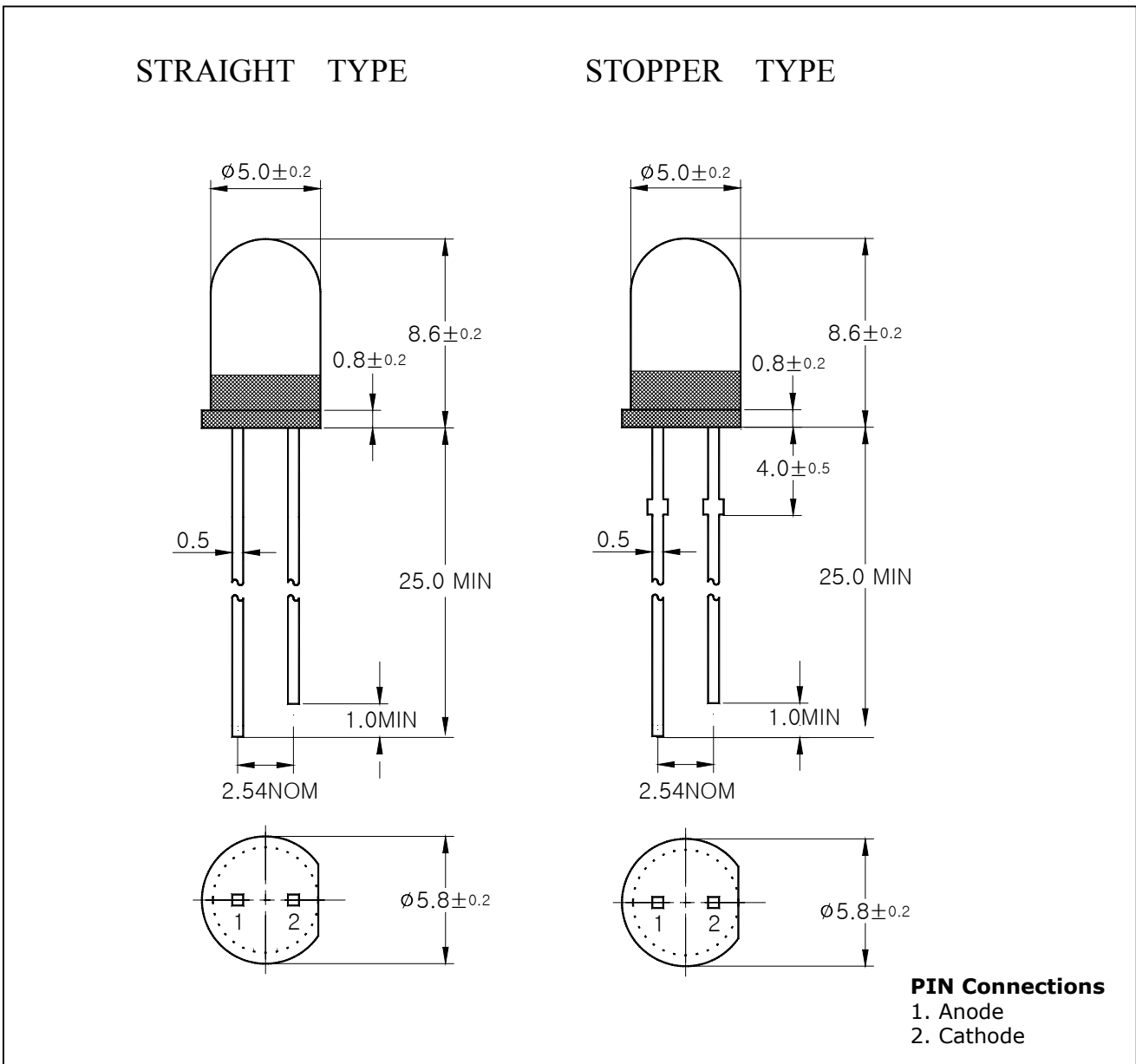
- Transparency lens type
- $\phi 5\text{mm}$ (T-13/4) all plastic mold type
- Super luminosity

**Application**

- Message boards

**Outline Dimensions**

unit : mm



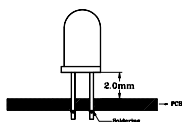
# SHE113MD / SHE113MD-(B)

## Absolute maximum ratings

Characteristic	Symbol	Ratings	Unit
Power Dissipation	$P_D$	120	mW
Forward Current	$I_F$	40	mA
*1 Peak Forward Current	$I_{FP}$	65	mA
Reverse Voltage	$V_R$	4	V
Operating Temperature	$T_{opr}$	-20 ~ 85	°C
Storage Temperature	$T_{stg}$	-30 ~ 100	°C
*2 Soldering Temperature	$T_{sol}$	260°C for 5 seconds	

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

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



## Electrical Characteristics

$T_a = 25^\circ\text{C}$

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F = 20\text{mA}$	1.6	2.0	2.5	V
*4 Luminous Intensity	$I_V$	$I_F = 20\text{mA}$	230	486	1170	mcd
Peak Wavelength	$\lambda_P$	$I_F = 20\text{mA}$	-	570	-	nm
Spectrum Bandwidth	$\Delta \lambda$	$I_F = 20\text{mA}$	-	30	-	nm
Reverse Current	$I_R$	$V_R = 4\text{V}$	-	-	10	uA
*3 Half Angle	$\theta_{1/2}$	$I_F = 20\text{mA}$	-	$\pm 11$	-	deg

\*3.  $\theta_{1/2}$  is the off-axis angle where the luminous intensity is 1/2 the peak intensity

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

\*4. Luminous Intensity classification

N	O	P	Q
230~350	350~520	520~780	780~1170

## Characteristic Diagrams

Fig. 1  $I_F - V_F$

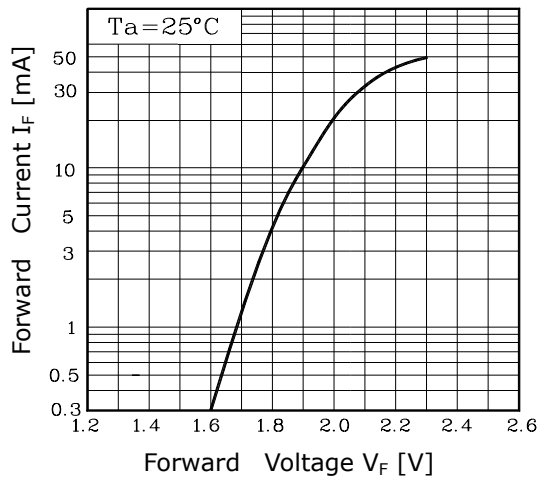


Fig. 2  $I_V - I_F$

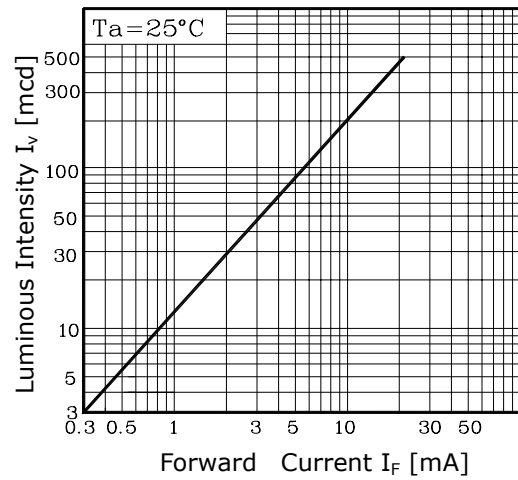


Fig. 3  $I_F - T_a$

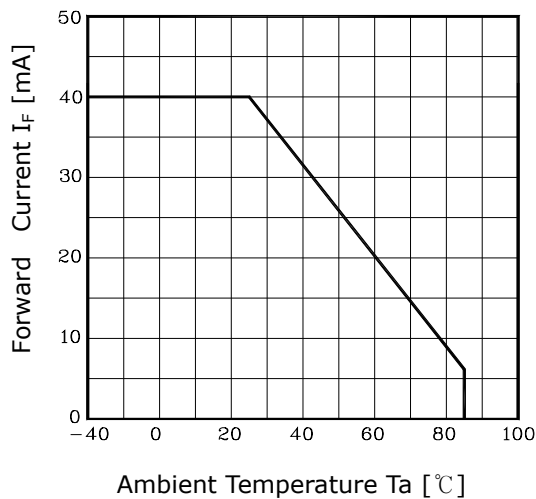


Fig. 4 Spectrum Distribution

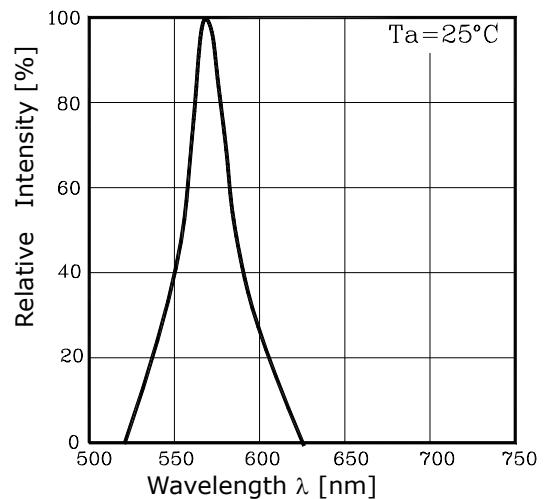
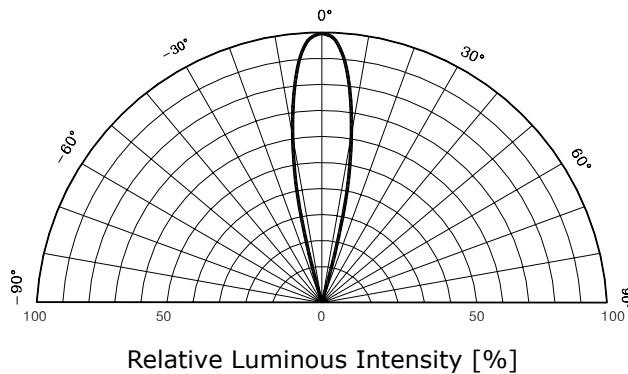


Fig. 5 Radiation Diagram



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