

**Features**

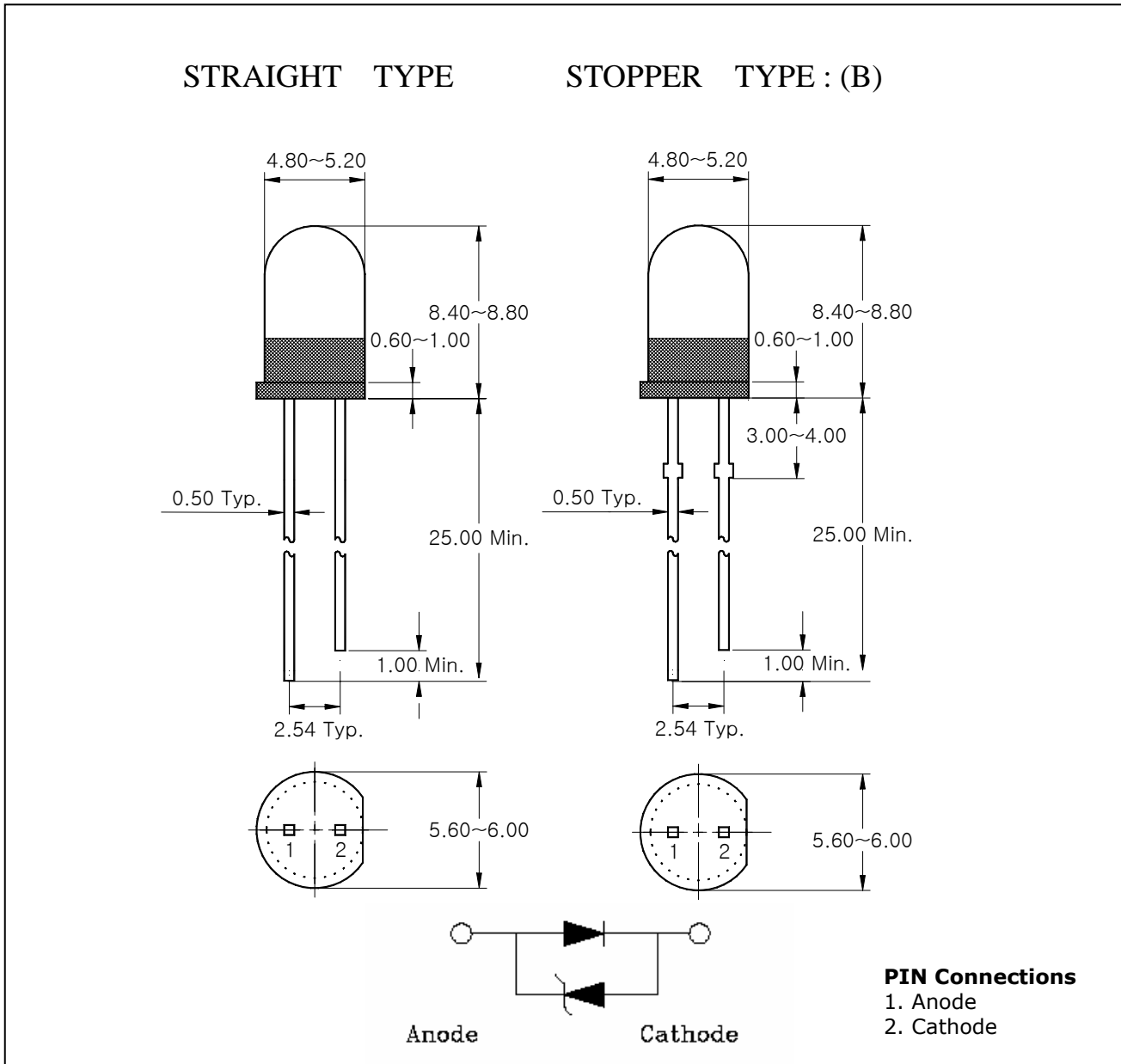
- Colorless transparency lens type
- $\phi 5\text{mm}$ (T-13/4) all plastic mold type
- Super luminosity
- **E ; ESD Protected ( $\pm 2.0\text{KV}$ , 3 Times @100pF, 1.5K $\Omega$ )**

**Application**

- Traffic Signal
- Message Board

**Outline Dimensions**

unit : mm



# SHE123BFE / SHE123BFE(B)

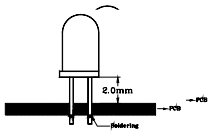
## Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Power dissipation	$P_D$	120	mW
Forward current	$I_F$	40	mA
*1 Peak forward current	$I_{FP}$	65	mA
Operating temperature range	$T_{opr}$	-30 ~ 85	°C
Storage temperature range	$T_{stg}$	-30 ~ 100	°C
*2 Soldering temperature	$T_{sol}$	260°C for 10 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



※ Recommend document

- . LED is very sensitive to ESD.

## Electrical / Optical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	$V_F$	$I_F = 20\text{mA}$	-	3.2	3.8	V
*4 Luminous intensity	$I_V$	$I_F = 20\text{mA}$	1170	-	3960	mcd
Dominant wavelength	$\lambda_D$	$I_F = 20\text{mA}$	457	465	472	nm
Spectrum bandwidth	$\Delta\lambda$	$I_F = 20\text{mA}$	-	17	-	nm
*3 Half angle	$\theta^{1/2}$	$I_F = 20\text{mA}$	-	$\pm 15$	-	deg

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

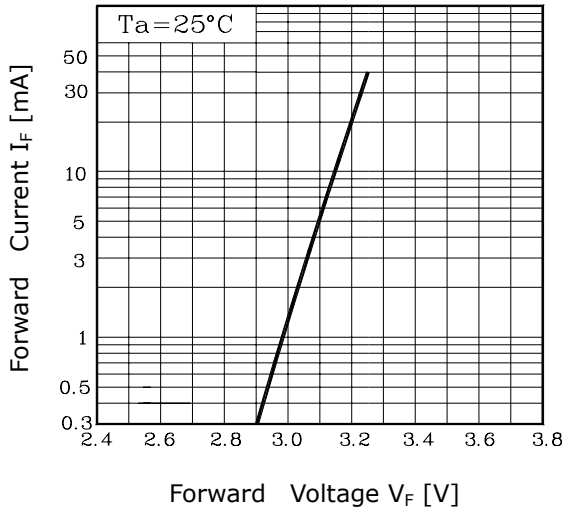
\*4. Luminous intensity maximum tolerance for each grade classification limit is  $\pm 18\%$

\*4. Luminous Intensity Classification

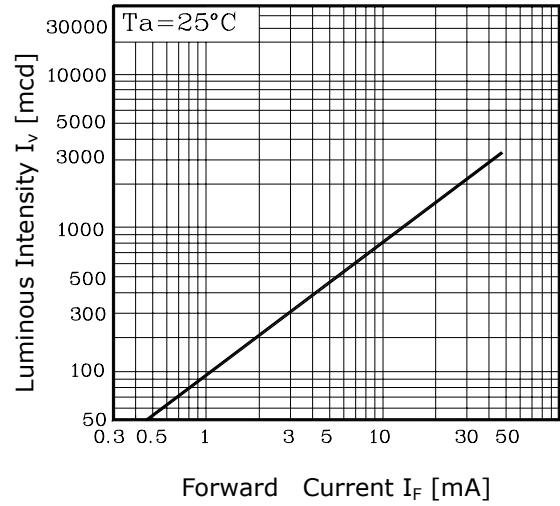
R	S	T
1170~1760	1760~2640	2640~3960

## Characteristic Diagrams

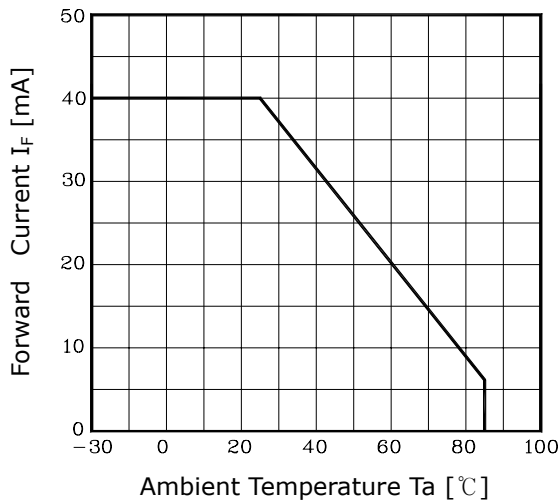
**Fig. 1  $I_F - V_F$**



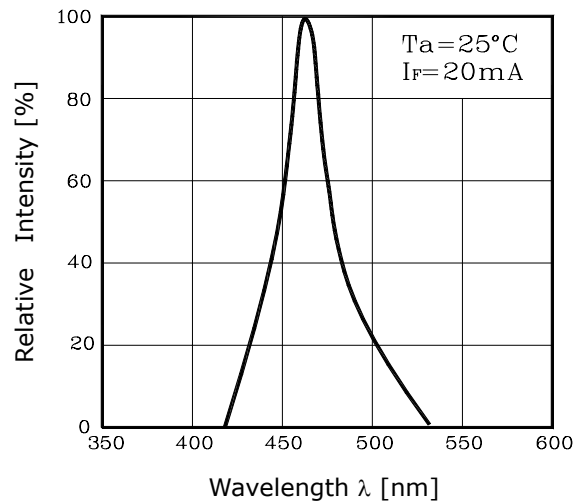
**Fig. 2  $I_V - I_F$**



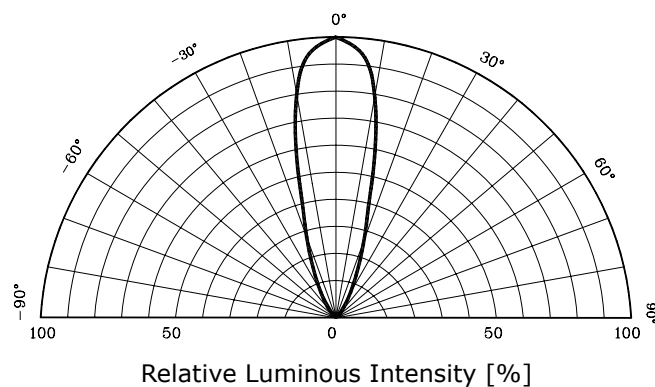
**Fig. 3  $I_F - T_a$**



**Fig.4 Spectrum Distribution**



**Fig. 5 Radiation Diagram**



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