

Features

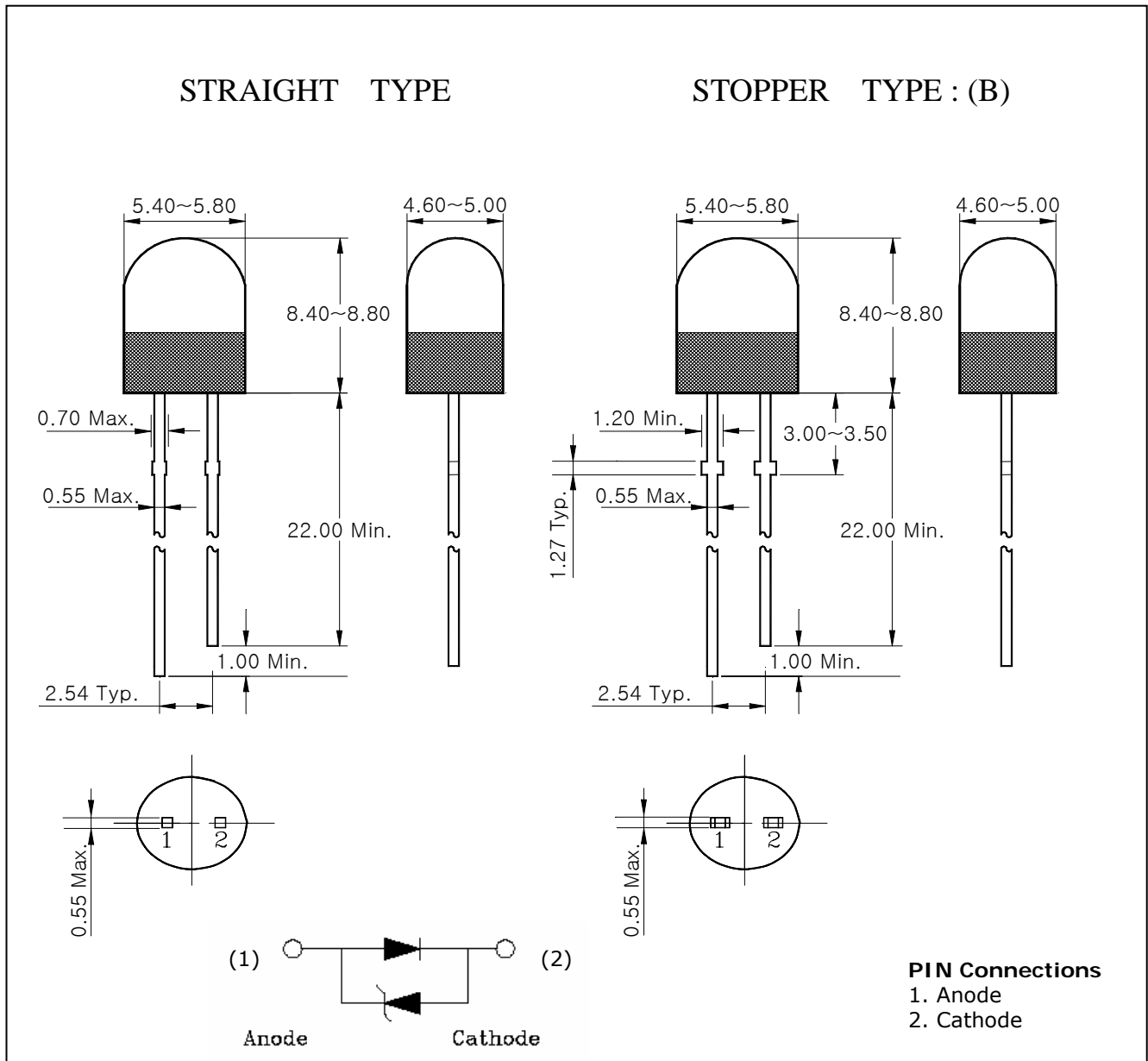
- Colorless transparency lens type
- $\phi 5\text{mm}$ (T-13/4) all plastic mold type
- Super luminosity
- E ; ESD Protected ($\pm 2.0\text{KV}$, 3 Times @100pF, 1.5K Ω)

Application

- Traffic Signal
- Message Board

Outline Dimensions

unit : mm



SHE133BFE / SHE133BFE(B)

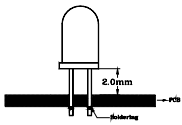
Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Power dissipation	P_D	150	mW
Forward current	I_F	40	mA
*1 Peak forward current	I_{FP}	50	mA
Operating temperature range	T_{opr}	-25 ~ 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	$I_F = 20\text{mA}$	650	-	2100	mcd
Dominant wavelength	λ_D	$I_F = 20\text{mA}$	457	465	472	nm
Spectrum bandwidth	$\Delta\lambda$	$I_F = 20\text{mA}$	-	20	-	nm
*3 Half angle	$\theta_{1/2}$	$I_F = 20\text{mA}$	-	± 30	-	deg
			-	± 15	-	

*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

P	Q	R ₁	R ₂	S
650~780	780~1170	1170~1450	1450~1760	1760~2100

Characteristic Diagrams

Fig. 1 $I_F - V_F$

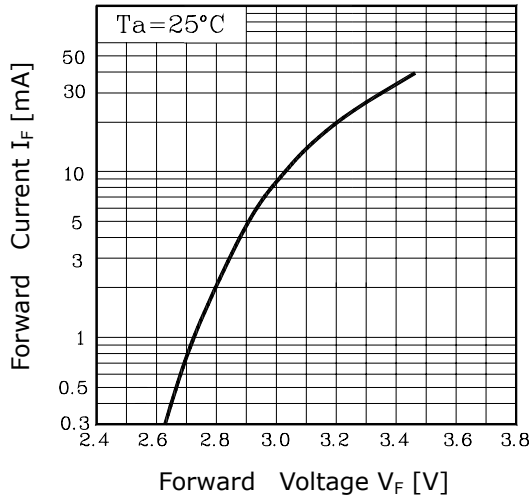


Fig. 2 $I_V - I_F$

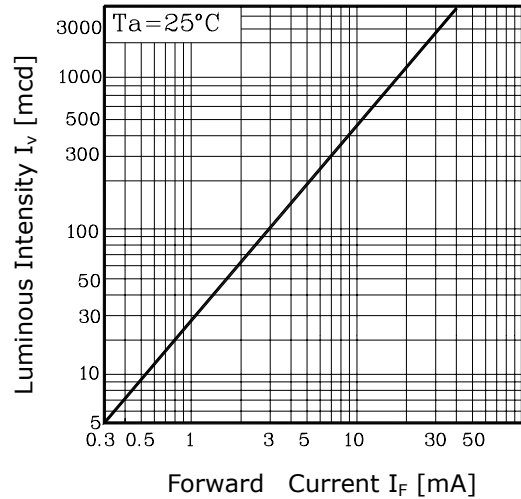


Fig. 3 $I_F - T_a$

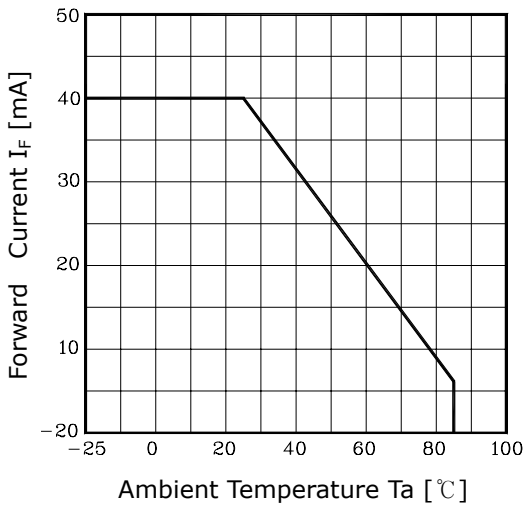


Fig. 4 Spectrum Distribution

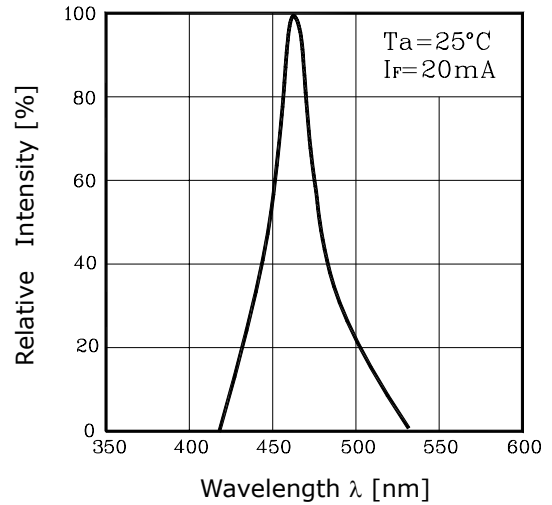


Fig. 5-1 Radiation Diagram(X)

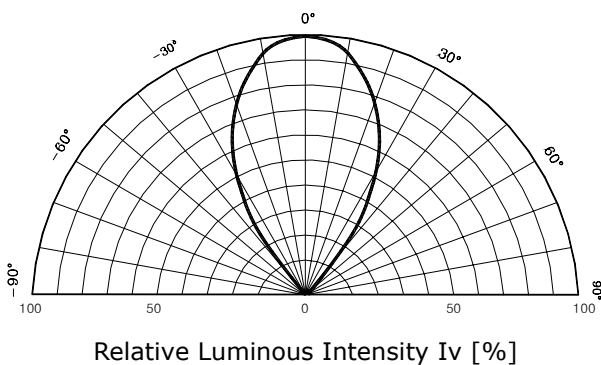
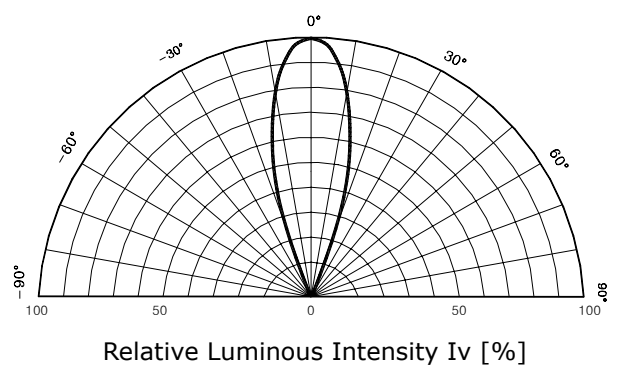


Fig. 5-2 Radiation Diagram(Y)



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