

**Features**

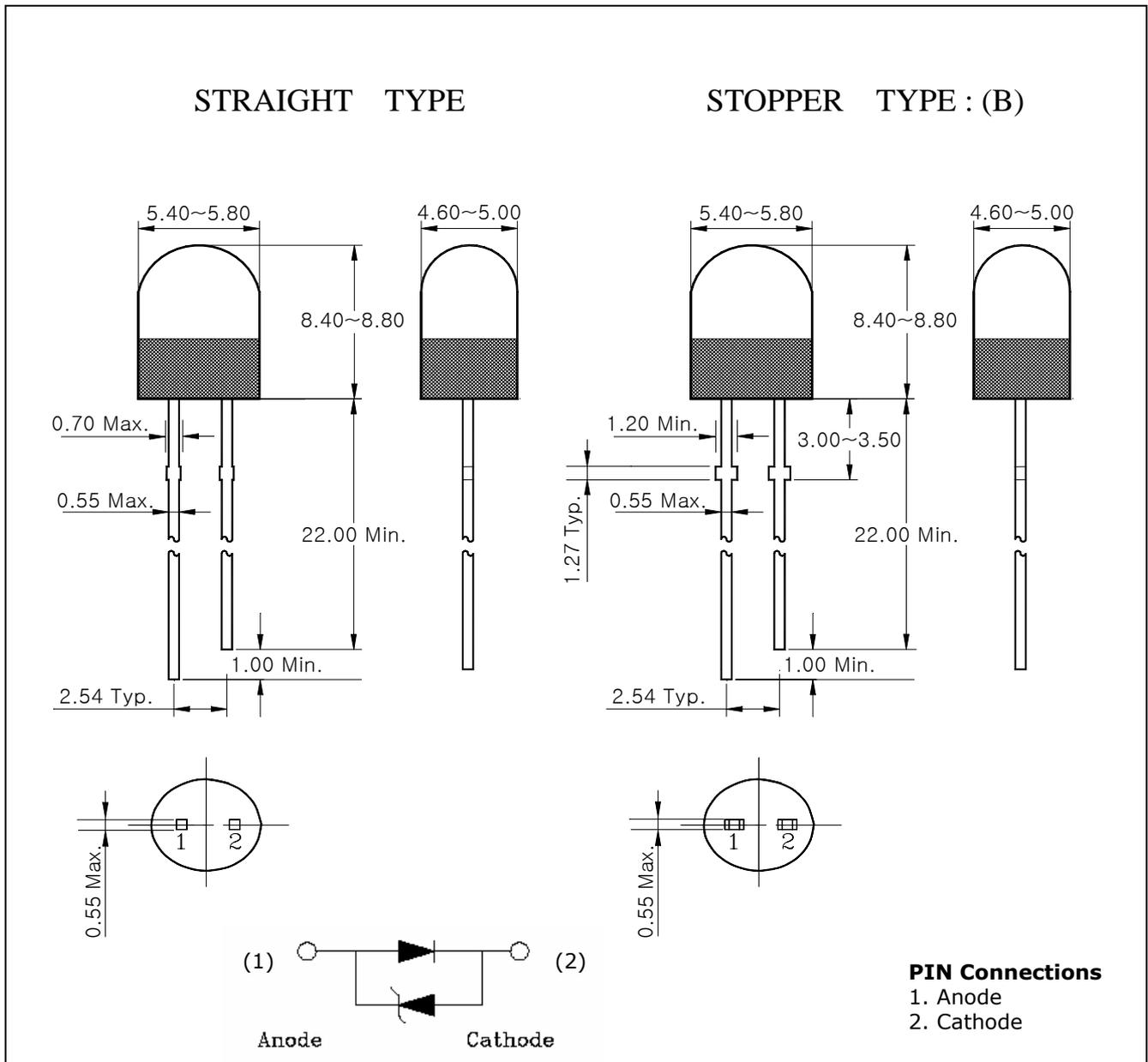
- Colorless transparency lens type
- $\phi 5\text{mm}$ (T-13/4) all plastic mold type
- Super luminosity
- **E ; ESD Protected ( $\pm 2.0\text{KV}$ , 3 Times @100pF, 1.5K $\Omega$ )**

**Application**

- Traffic Signal
- Message Board

**Outline Dimensions**

unit : mm



# SHE133PGHE / SHE133PGHE(B)

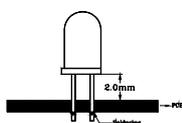
## Absolute Maximum Ratings

(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
Reverse voltage	$V_R$	4	V
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	$I_V$	$I_F = 20\text{mA}$	2640	-	7400	mcd
Dominant wavelength	$\lambda_D$	$I_F = 20\text{mA}$	516	522	528	nm
Spectrum bandwidth	$\Delta\lambda$	$I_F = 20\text{mA}$	-	30	-	nm
*3 Half angle	$\theta_{1/2}$	$I_F = 20\text{mA}$	-	$\pm 30$	-	deg
			-	$\pm 15$	-	

\*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

$T_1$	$T_2$	$U_1$	$U_2$	$V_1$
2640~3220	3220~3960	3960~4960	4960~5940	5940~7400

## Characteristic Diagrams

Fig. 1  $I_F - V_F$

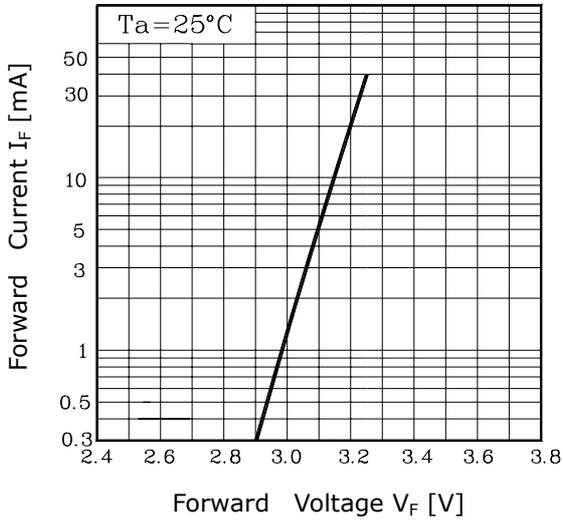


Fig. 2  $I_V - I_F$

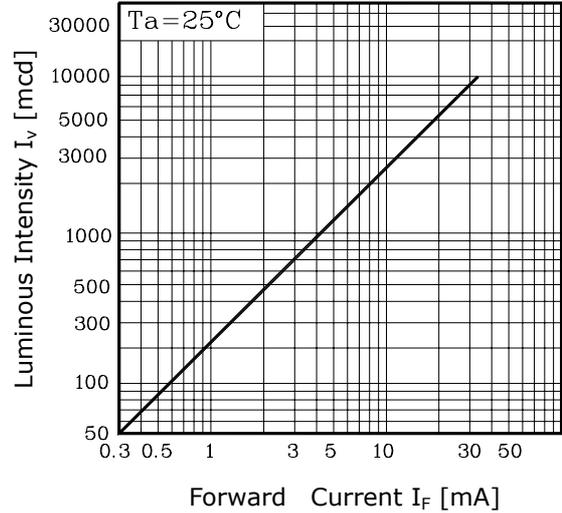


Fig. 3  $I_F - T_a$

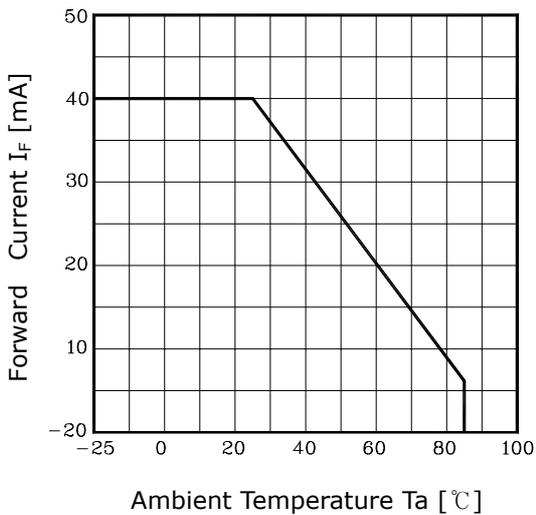


Fig. 4 Spectrum Distribution

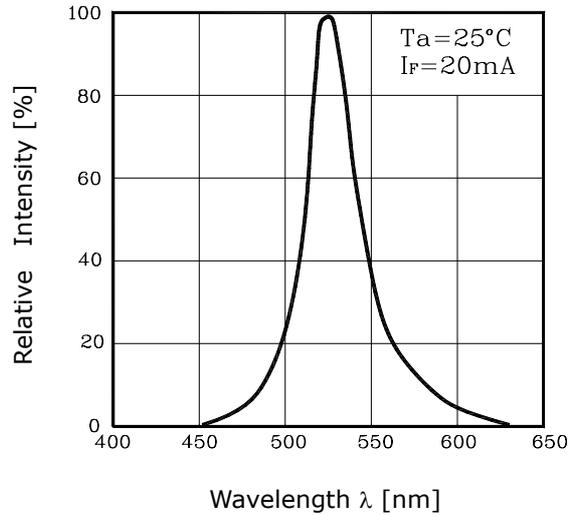


Fig. 5-1 Radiation Diagram(X)

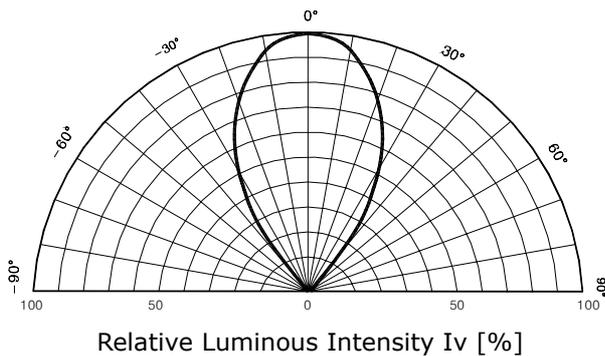
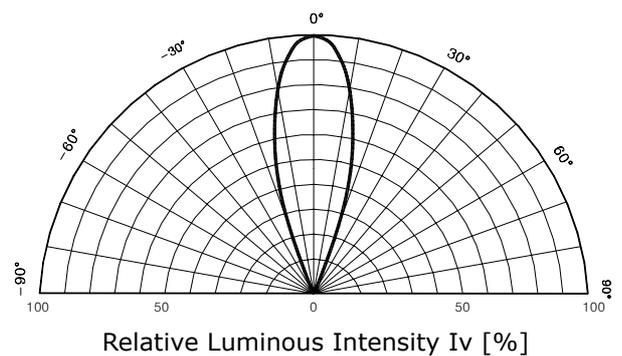


Fig. 5-2 Radiation Diagram(Y)



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