

**Features**

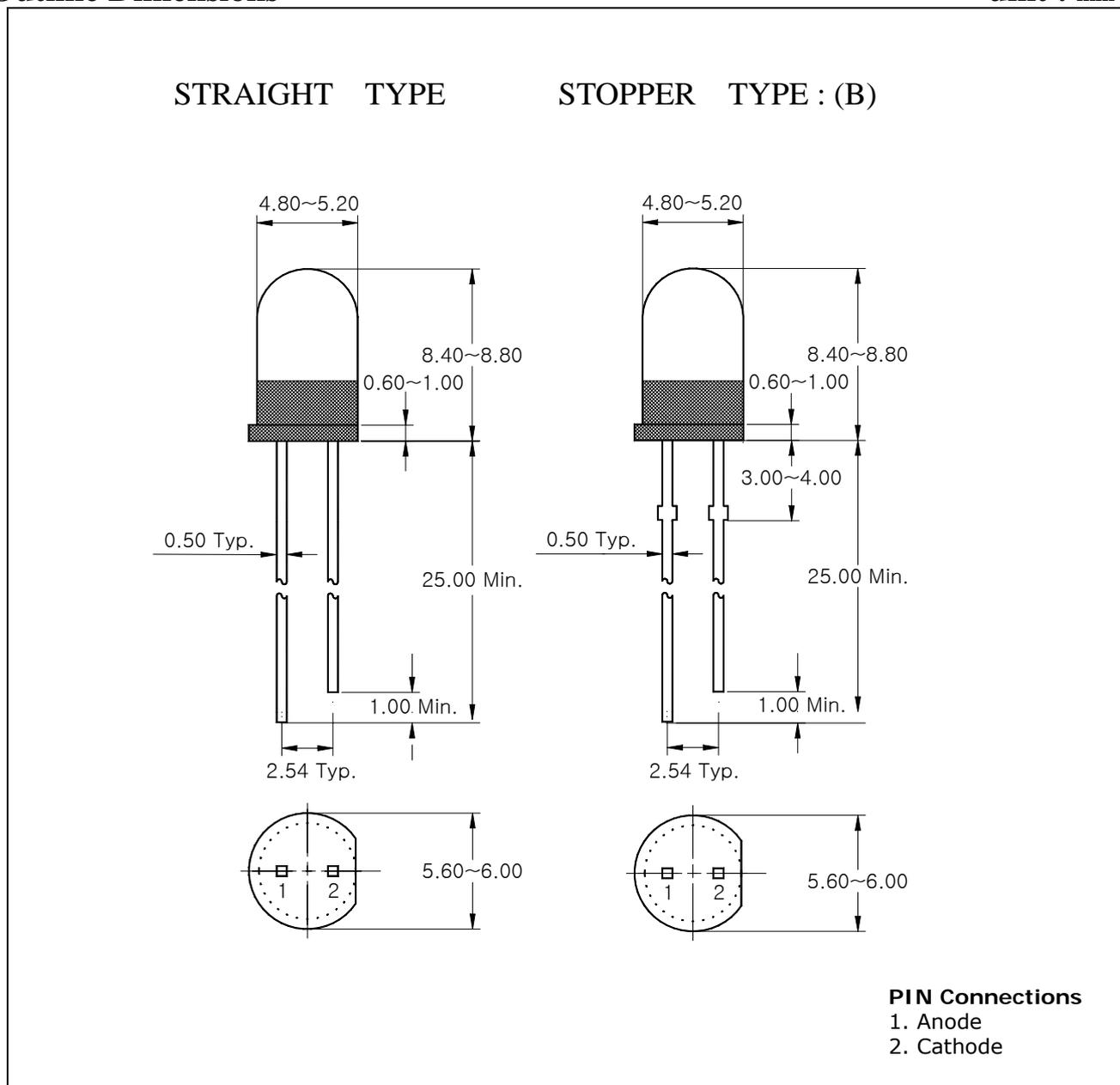
- Colorless transparency lens type
- $\phi 5\text{mm}$ (T-13/4) all plastic mold type
- Super luminosity

**Application**

- Traffic Signal
- Message Board

**Outline Dimensions**

unit : mm



# SHE123AF / SHE123AF(B)

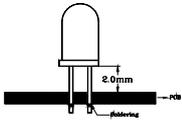
## Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Power dissipation	$P_D$	105	mW
Forward current	$I_F$	40	mA
*1 Peak forward current	$I_{FP}$	65	mA
Reverse voltage	$V_R$	4	V
Operating temperature range	$T_{opr}$	-20 ~ 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



## Electrical / Optical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	$V_F$	$I_F = 20\text{mA}$	-	2.1	2.6	V
*4 Luminous intensity	$I_V$	$I_F = 20\text{mA}$	2640	-	8910	mcd
Dominant wavelength	$\lambda_D$	$I_F = 20\text{mA}$	615	620	625	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	$\theta_{1/2}$	$I_F = 20\text{mA}$	-	$\pm 15$	-	deg

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

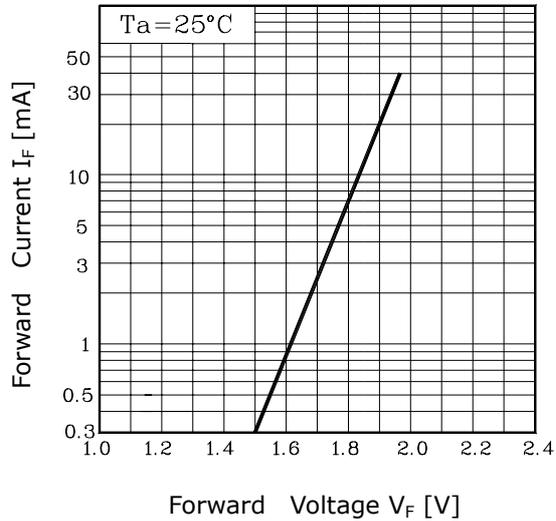
\*4. Luminous intensity maximum tolerance for each grade classification limit is  $\pm 18\%$

\*4. Luminous Intensity Classification

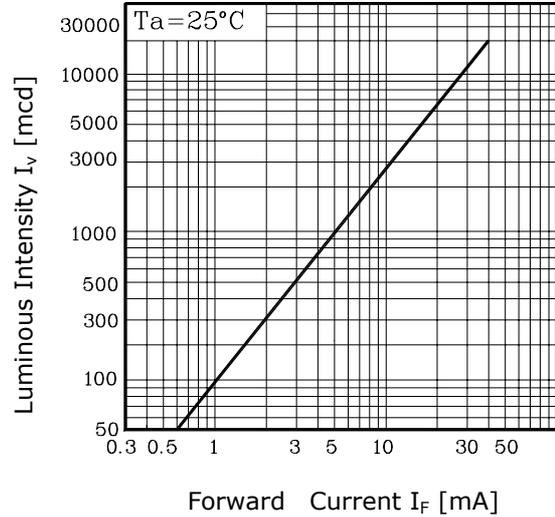
T1	T2	U1	U2	V1	V2
2640~3400	3400~3960	3960~4900	4900~5940	5940~7400	7400~8910

## Characteristic Diagrams

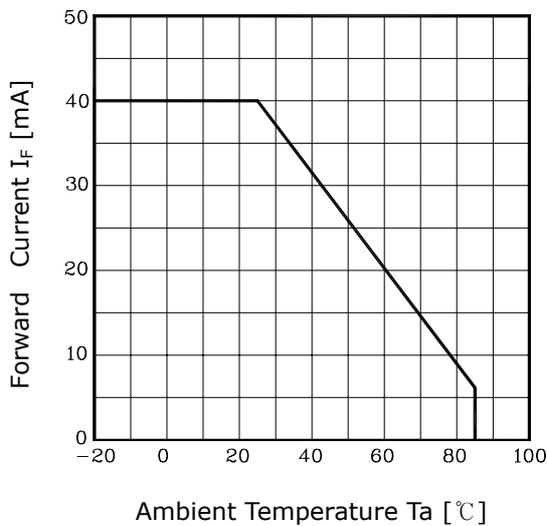
**Fig. 1  $I_F - V_F$**



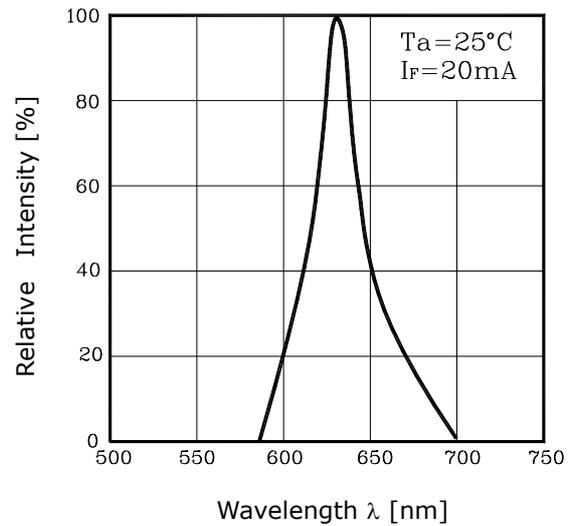
**Fig. 2  $I_V - I_F$**



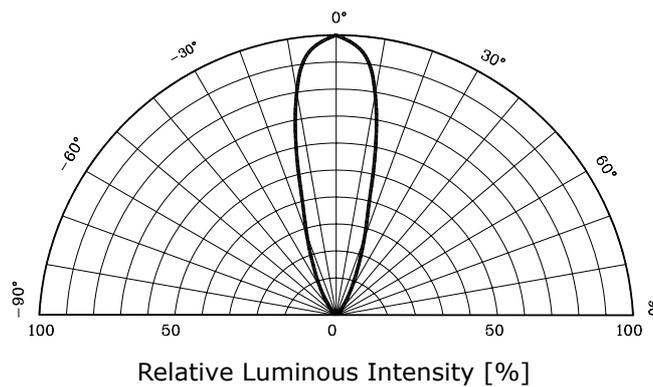
**Fig. 3  $I_F - T_a$**



**Fig. 4 Spectrum Distribution**



**Fig. 5 Radiation Diagram**



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