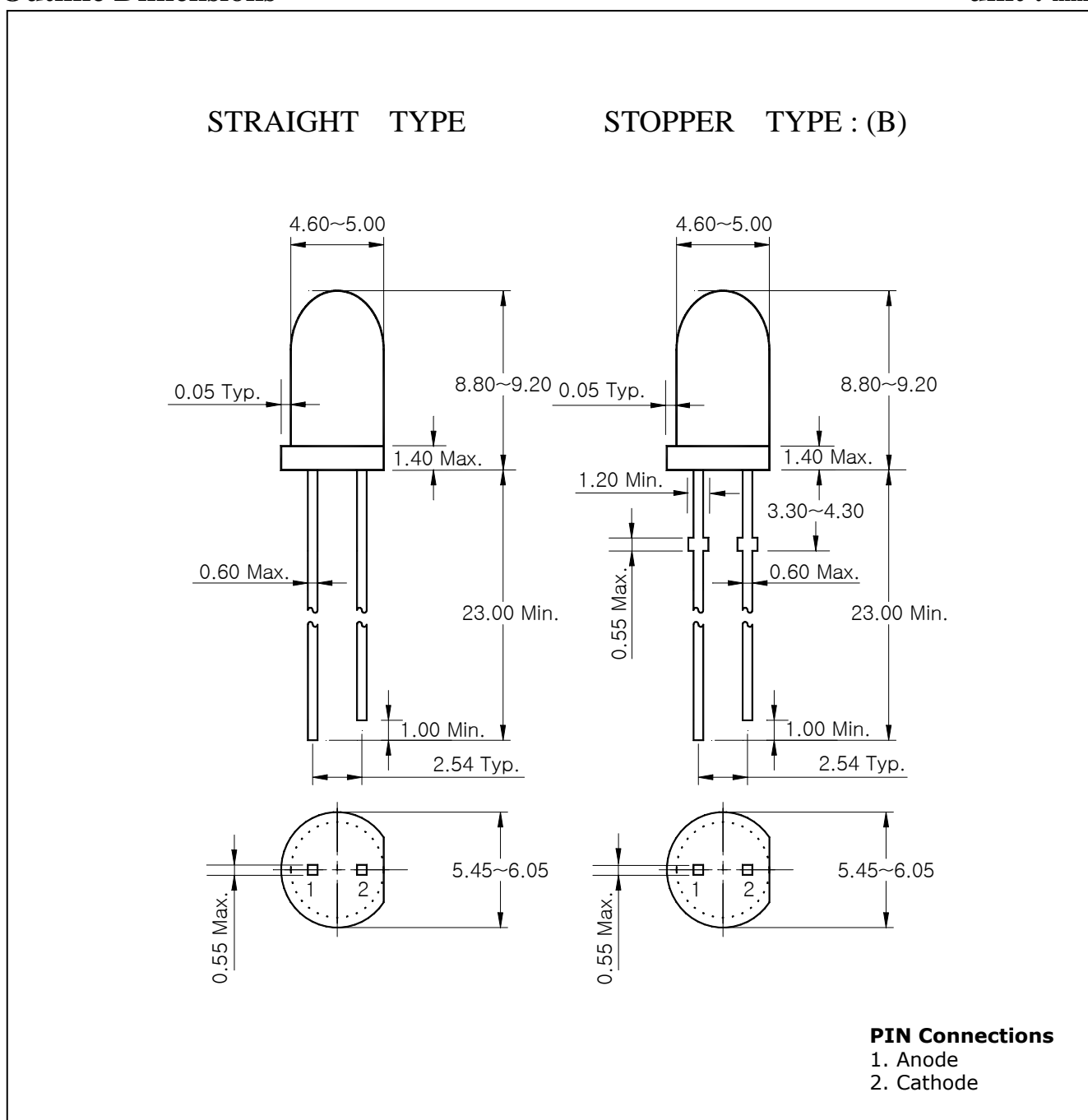


Features

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

Outline Dimensions

unit : mm



SB5312-U / SB5312-U(B)

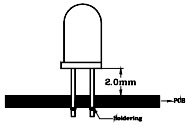
Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Power dissipation	P_D	85	mW
Forward current	I_F	20	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	$I_F = 20\text{mA}$	-	3.5	4.2	V
*4 Luminous intensity	I_V	$I_F = 20\text{mA}$	1170	-	5940	mcd
Peak wavelength	λ_p	$I_F = 20\text{mA}$	-	435	-	nm
Spectrum bandwidth	$\Delta\lambda$	$I_F = 20\text{mA}$	-	60	-	nm
Reverse current	I_R	$V_R = 4\text{V}$	-	-	10	uA
*3 Half angle	$\theta_{1/2}$	$I_F = 20\text{mA}$	-	±8	-	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 ±18%

*4. Luminous Intensity Classification

R	S	T	U
1170~1760	1760~2640	2640~3960	3960~5940

Characteristic Diagrams

Fig. 1 $I_F - V_F$

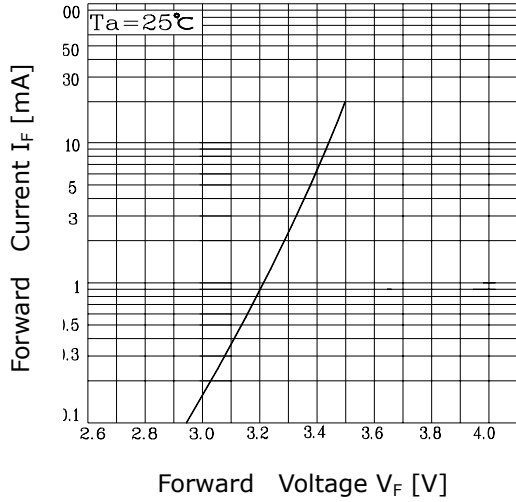


Fig. 2 $I_V - I_F$

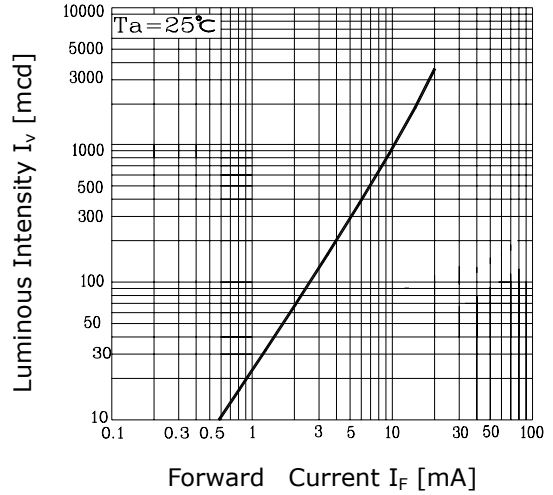


Fig. 3 $I_F - T_a$

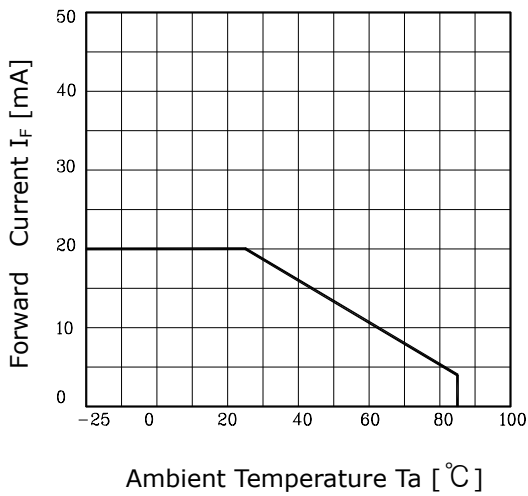


Fig. 4 Spectrum Distribution

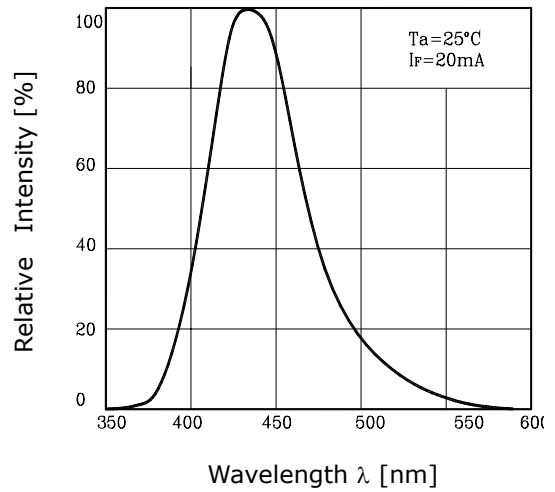
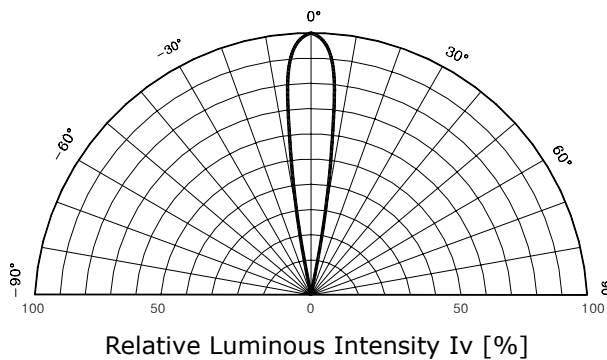


Fig. 5 Radiation Diagram



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