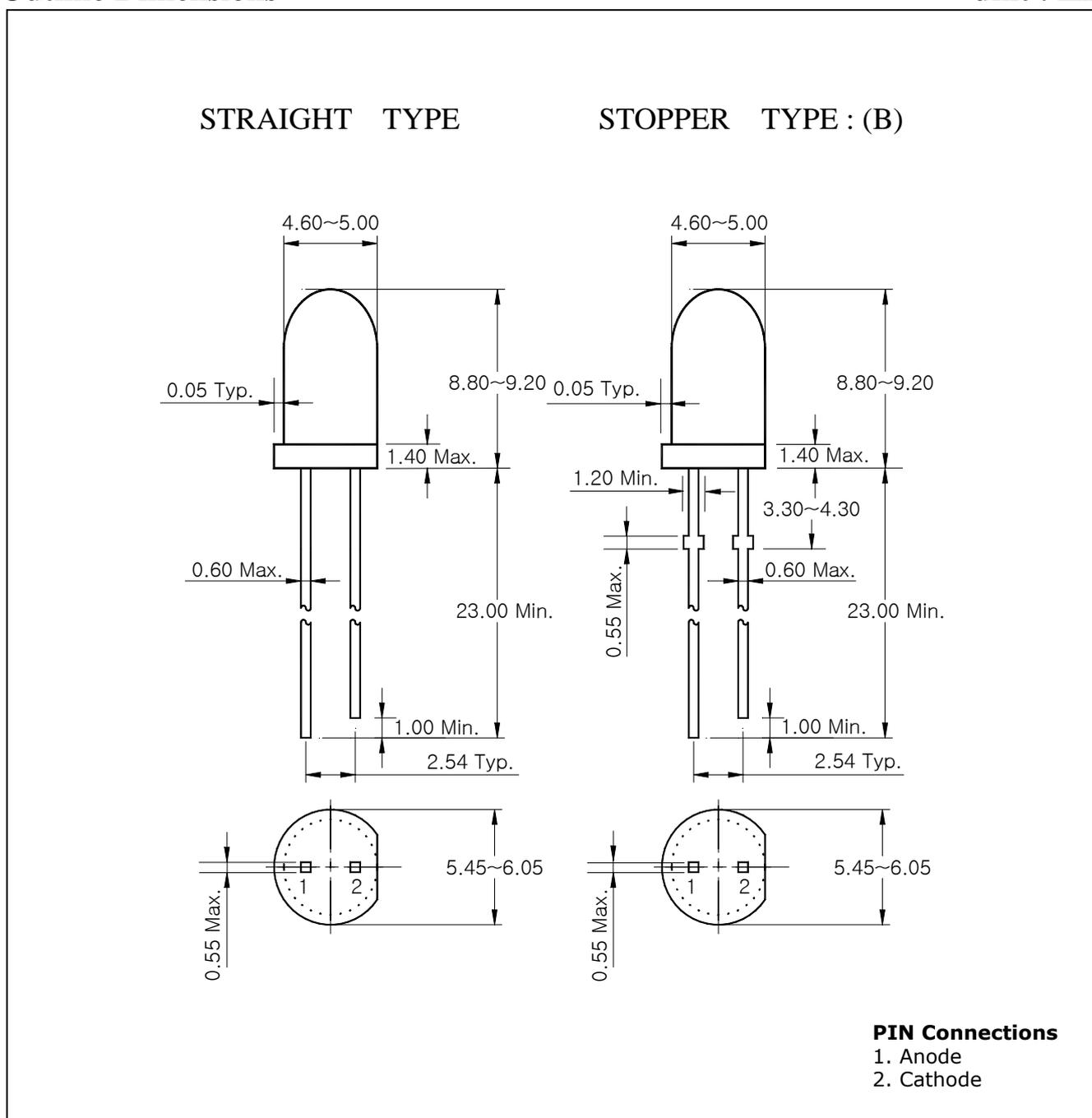


**Features**

- 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 $\Omega$ )**

**Outline Dimensions**

**unit : mm**



# SB5312-H / SB5312-H(B)

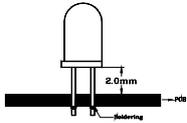
## Absolute Maximum Ratings

(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	$I_V$	$I_F = 20\text{mA}$	350	-	1760	mcd
Peak wavelength	$\lambda_p$	$I_F = 20\text{mA}$	-	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

O	P	Q	R
350~520	520~780	780~1170	1170~1760

Characteristic Diagrams

Fig. 1  $I_F - V_F$

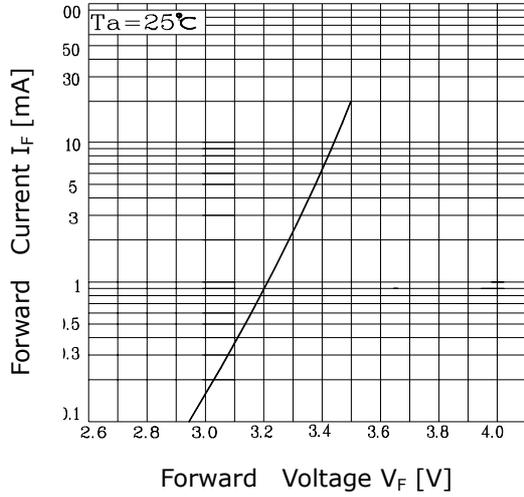


Fig. 2  $I_V - I_F$

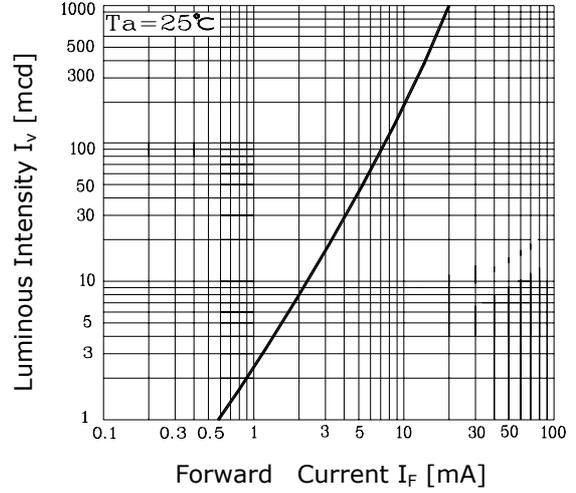


Fig. 3  $I_F - T_a$

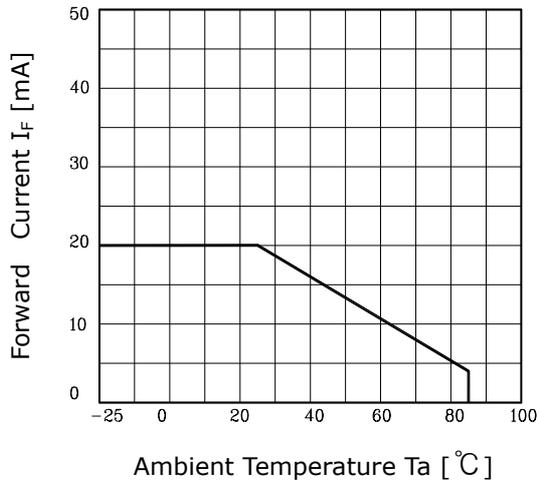


Fig. 4 Spectrum Distribution

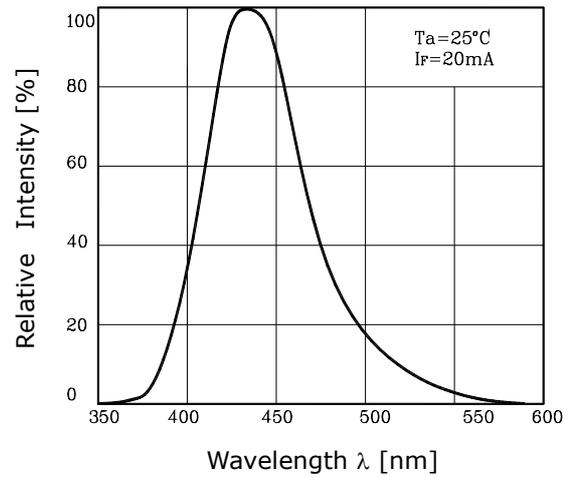
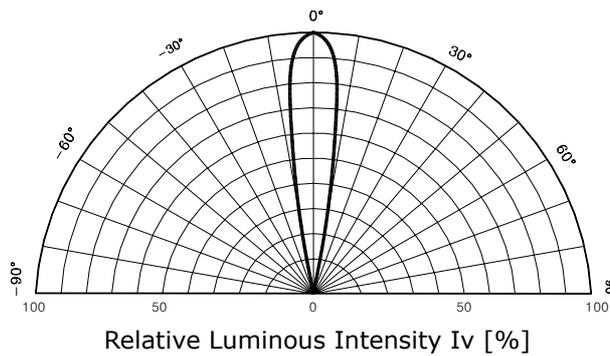


Fig. 5 Radiation Diagram



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