

**Features**

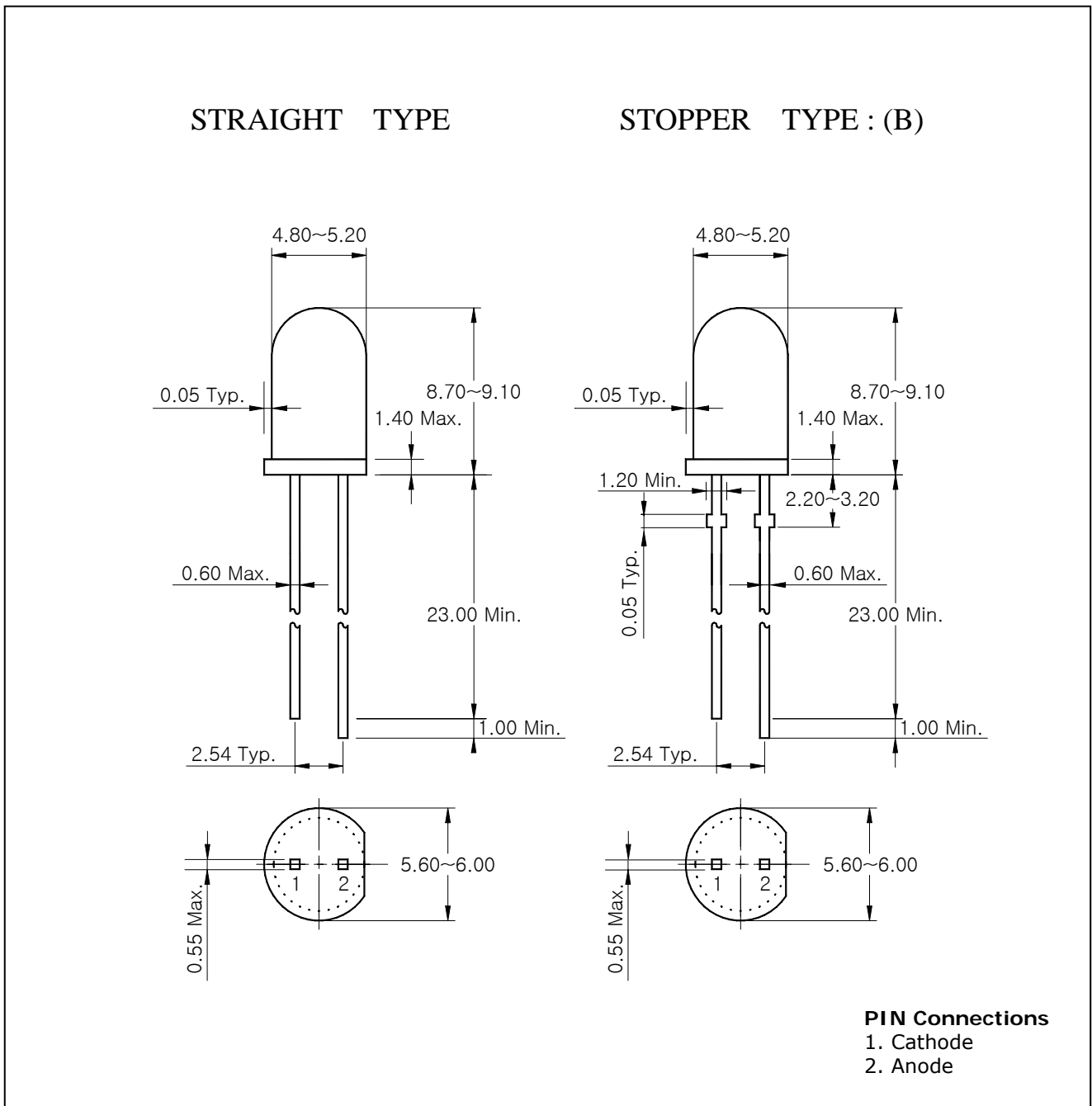
- Colorless transparency lens type
- $\phi 5\text{mm}$ (T-13/4) all plastic mold type
- Low power consumption

**Applications**

- Infrared remote control and free air transmission systems with low forward voltage and comfortable radiation angle requirements in combination with PIN photodiodes or phototransistors.

**Outline Dimensions**

**unit : mm**



# SI5313-C / SI5313-C(B)

## Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Power dissipation	P <sub>D</sub>	180	mW
Forward current	I <sub>F</sub>	100	mA
* <sup>1</sup> Peak forward current	I <sub>FP</sub>	1	A
Reverse voltage	V <sub>R</sub>	4	V
Operating temperature range	T <sub>opr</sub>	-25~85	°C
Storage temperature range	T <sub>stg</sub>	-30~100	°C
* <sup>2</sup> Soldering temperature	T <sub>sol</sub>	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 IRED package

## Electrical / Optical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	V <sub>F</sub>	I <sub>F</sub> = 50mA	-	1.5	1.8	V
Radiant intensity	I <sub>E</sub>	I <sub>F</sub> = 50mA	10	20	-	mW/Sr
Peak wavelength	λ <sub>p</sub>	I <sub>F</sub> = 50mA	-	880	-	nm
Spectrum bandwidth	Δλ	I <sub>F</sub> = 50mA	-	50	-	nm
Reverse current	I <sub>R</sub>	V <sub>R</sub> =4V	-	-	10	uA
* <sup>3</sup> Half angle	θ <sup>1/2</sup>	I <sub>F</sub> = 50mA	-	±30	-	deg

\*3. θ<sup>1/2</sup> is the off-axis angle where the luminous intensity is 1/2 the peak intensity

Characteristic Diagrams

Fig. 1  $I_F - V_F$

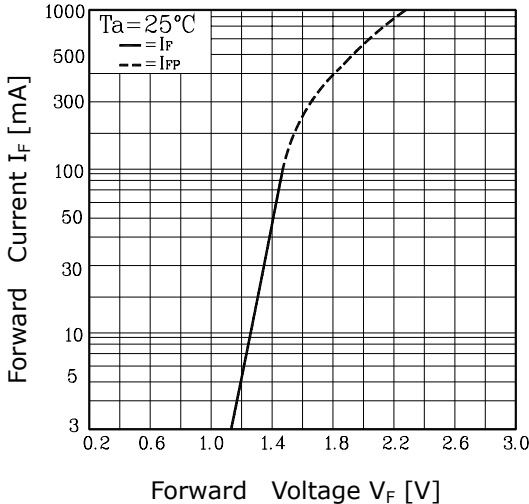


Fig. 2  $I_E - I_F$

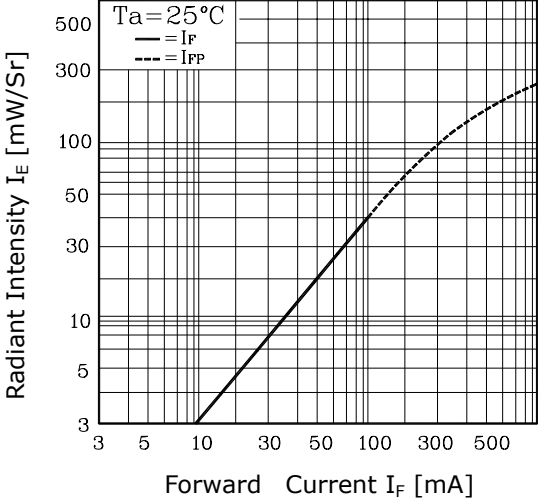


Fig. 3  $I_F - T_a$

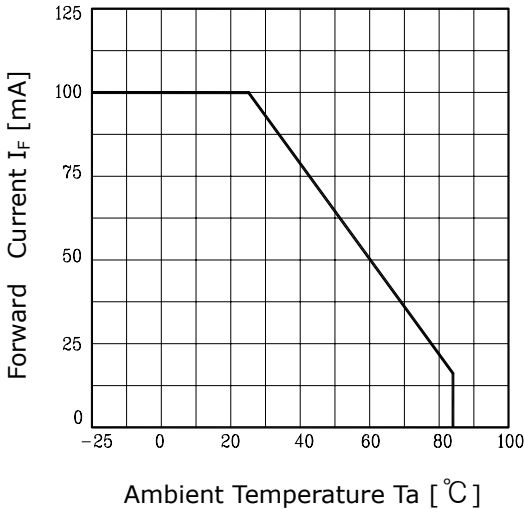


Fig.4 Spectrum Distribution

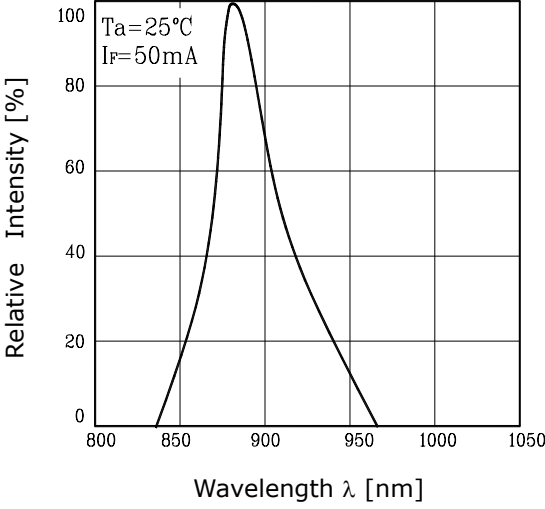
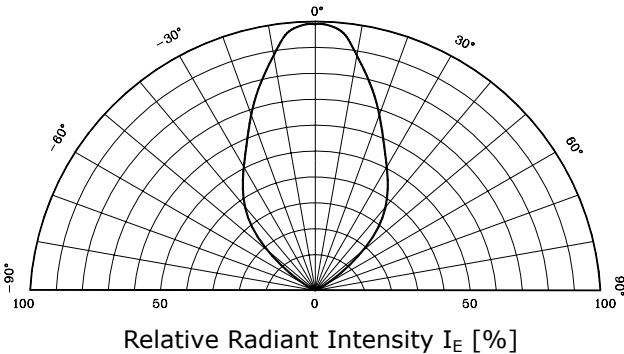


Fig. 5 Radiation Diagram



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