

Features

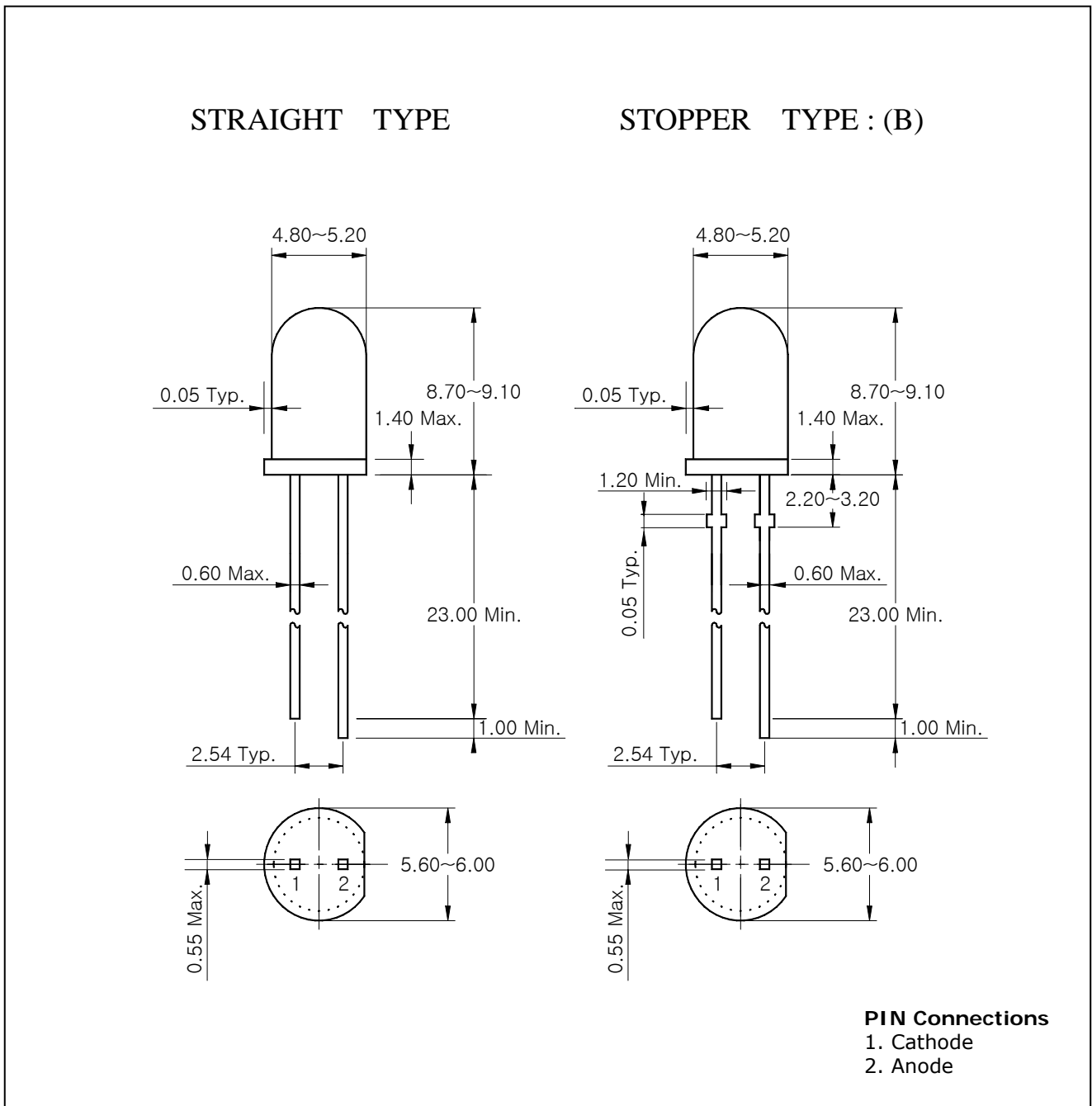
- Colorless transparency lens type
- $\phi 5\text{mm}$ (T-13/4) all plastic mold type
- Low power consumption

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_D	180	mW
Forward current	I_F	100	mA
*1Peak forward current	I_{FP}	1	A
Reverse voltage	V_R	4	V
Operating temperature range	T_{opr}	-25~85	°C
Storage temperature range	T_{stg}	-30~100	°C
*2Soldering 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 IRED package

Electrical / Optical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	V_F	$I_F= 50\text{mA}$	-	1.5	1.8	V
Radiant intensity	I_E	$I_F= 50\text{mA}$	10	20	-	mW/Sr
Peak wavelength	λ_p	$I_F= 50\text{mA}$	-	880	-	nm
Spectrum bandwidth	Δ_λ	$I_F= 50\text{mA}$	-	50	-	nm
Reverse current	I_R	$V_R=4\text{V}$	-	-	10	uA
*3Half angle	$\theta^{1/2}$	$I_F= 50\text{mA}$	-	±30	-	deg

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

Characteristic Diagrams

Fig. 1 $I_F - V_F$

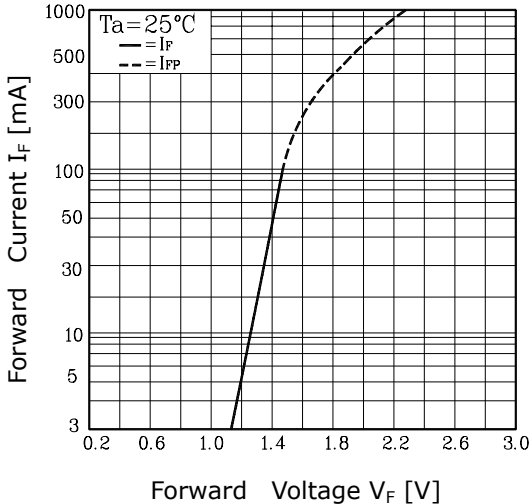


Fig. 2 $I_E - I_F$

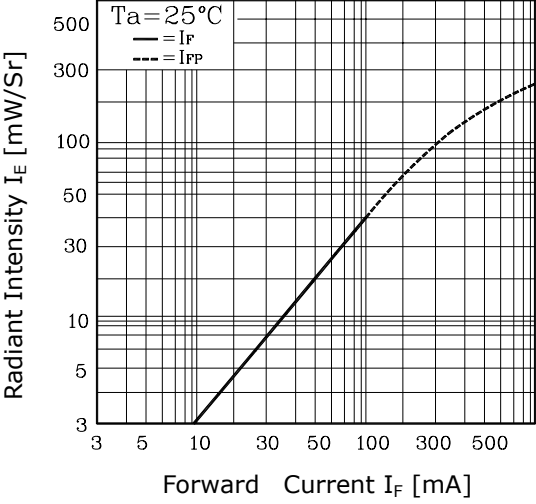


Fig. 3 $I_F - T_a$

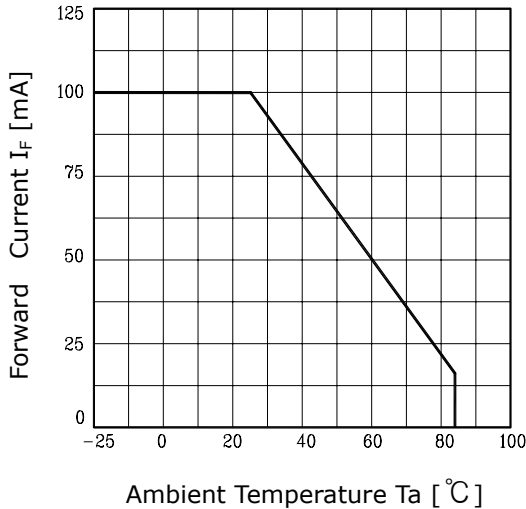


Fig. 4 Spectrum Distribution

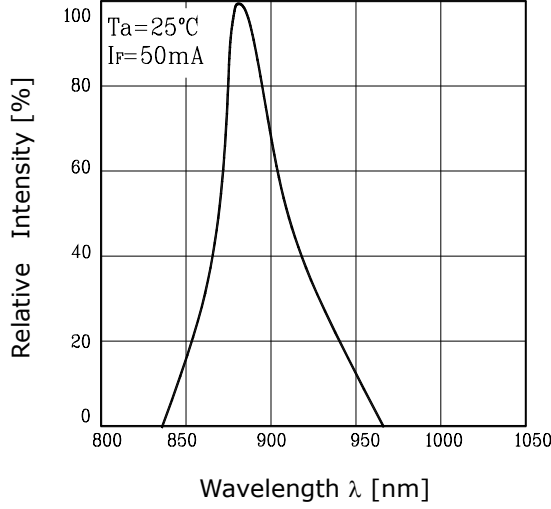
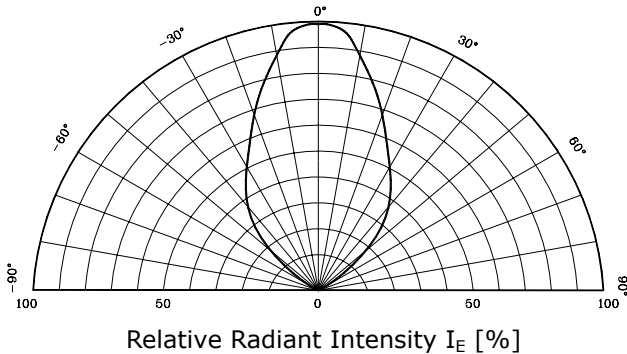


Fig. 5 Radiation Diagram



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