

**IRED** 

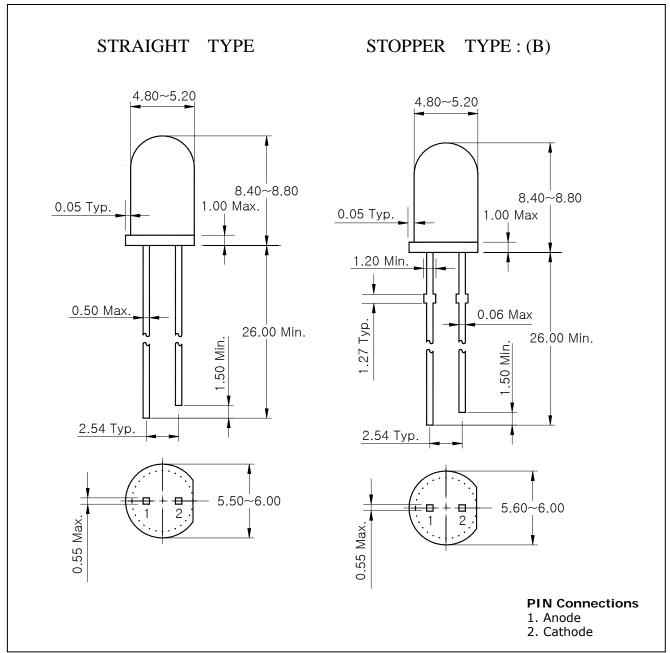
#### **Features**

- Colorless transparency lens type
- φ5mm(T-13/4) all plastic mold type
- Low power consumption
- High radiant intensity

#### **Applications**

• Light source for remote control devices (This device should be only used at non- repetitive pulse mode)

#### Outline Dimensions unit: mm



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### **Absolute Maximum Ratings**

(Ta=25°C)

Characteristic	Symbol	Rating	Unit	
Power dissipation	P <sub>D</sub>	145	mW	
*1Forward current	$I_{F}$	100	mA	
* <sup>2</sup> Peak forward current	${ m I}_{\sf FP}$	1	А	
Reverse voltage	$V_R$	4	V	
Operating temperature range	T <sub>opr</sub>	-25~85	$^{\circ}$	
Storage temperature range	T <sub>stg</sub>	-30~100	$^{\circ}$	
* <sup>3</sup> Soldering temperature	T <sub>sol</sub>	260℃ for 10 seconds		

<sup>\*1.</sup> Avoid operating under continuous bias

### **Electrical / Optical Characteristics**

(Ta=25℃)

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Characteristic	Symbol	<b>Test Condition</b>	Min.	Typ.	Max.	Unit
Forward voltage	$V_{F}$	I <sub>F</sub> = 50mA	-	1.3	1.45	V
Radiant intensity	$I_{E}$	I <sub>F</sub> = 50mA	25	50	-	mW/Sr
Peak wavelength	$\lambda_{P}$	I <sub>F</sub> = 50mA	-	950	-	nm
Spectrum bandwidth	$\Delta_{\lambda}$	$I_F = 50mA$	-	50	-	nm
Reverse current	${ m I}_{\sf R}$	$V_R=4V$	-	-	10	uA
* <sup>4</sup> Half angle	$\theta^1/_2$	I <sub>F</sub> = 50mA	-	±11	-	deg

<sup>\*4.</sup>  $\theta$ 1/2 is the off-axis angle where the luminous intensity is 1/2 the peak intensity

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<sup>\*2.</sup>Duty ratio = 1/100, Pulse width = 0.1ms

<sup>\*3.</sup>Keep the distance more than 2.0mm from PCB to the bottom of IRED package

#### **Characteristic Diagrams**

Fig. 1  $I_F$ - $V_F$ 

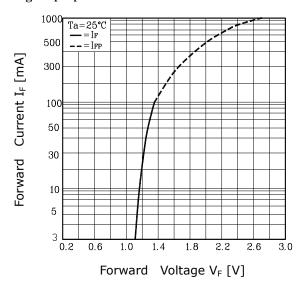


Fig. 2  $I_E$  -  $I_F$ 

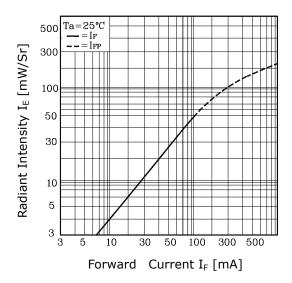
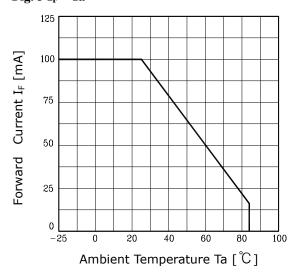


Fig.  $3 I_F - Ta$ 



**Fig.4 Spectrum Distribution** 

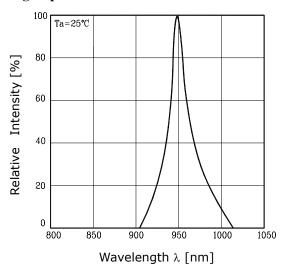
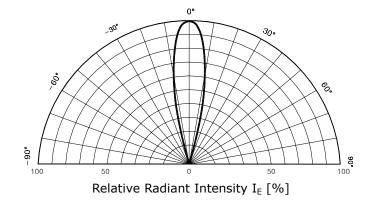


Fig. 5 Radiation Diagram



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