

**IRED** 

#### **Features**

- Colorless transparency lens type
- \$5mm(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 **STRAIGHT** STOPPER **TYPE** TYPE:(B)4.60~5.00 4.60~5.00 8.80~9.20 0.05 Typ. 8.80~9.20 0.05 Typ. 1.40 Max. 1.40 Max. 1.20 Min. 3.30~4.30 0.60 Max 0.60 Max. 0.55 Max 23.00 Min. 23.00 Min. 1.00 Min. 1.00 Min. 🖠 2.54 Typ. 2.54 Typ. 5.45~6.05 5.45~6.05 0.55 Max. 0.55 Max. **PIN Connections**

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Anode
 Cathode

**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°C for 10 seconds		

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

**Electrical / Optical Characteristics** 

(Ta=25°C)

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Characteristic	Symbol	<b>Test Condition</b>	Min.	Typ.	Max.	Unit
Forward voltage	$V_{F}$	$I_F = 50mA$	-	1.3	1.45	V
Radiant intensity	I <sub>E</sub>	I <sub>F</sub> = 50mA	30	70	-	mW/Sr
Peak wavelength	$\lambda_{P}$	I <sub>F</sub> = 50mA	-	950	-	nm
Spectrum bandwidth	$\Delta_{\lambda}$	I <sub>F</sub> = 50mA	-	50	-	nm
Reverse current	$I_{R}$	V <sub>R</sub> =4V	-	ı	10	uA
* <sup>4</sup> Half angle	$\theta^1/_2$	I <sub>F</sub> = 50mA	-	±8	-	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  $I_F$ - $V_F$ 

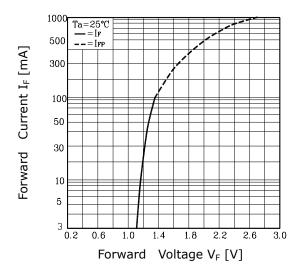
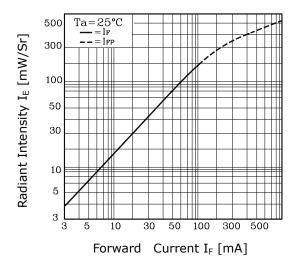
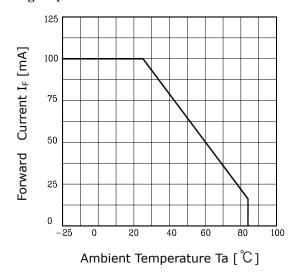


Fig. 2  $I_E - I_F$ 



 $Fig. \ 3\ I_F-Ta$ 



**Fig.4 Spectrum Distribution** 

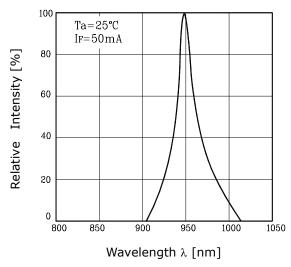
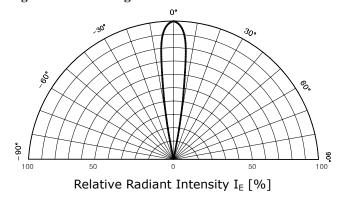


Fig. 5 Radiation Diagram



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