

**IRED** 

#### **Features**

- Blue Colored 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 STRAIGHT **TYPE** STOPPER **TYPE**: (B) 4.80~5.20 4.80~5.20 8.50~8.90 8.50~8.90 0.05 Typ. 0.05 Typ. 1.20 Min. 3.90 0.30 Max. 0.60 Max. 0.60 Max 26.0 MIN 26.0 Min. 1.00 Min. 🖠 1<u>.00 Min</u>. 2.54 Typ. 2.54 Typ. 5.60~6.00 5.60~6.00 0.55 Max 0.55 Max **PIN Connections** 1. Anode 2. Cathode

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**Absolute Maximum Ratings** 

(Ta=25℃)

Characteristic	Symbol	Rating	Unit
Power dissipation	P <sub>D</sub>	150	mW
*1Forward current	${ m I}_{\sf F}$	100	mA
* <sup>2</sup> Peak forward current	$I_{FP}$	1	А
Reverse voltage	$V_R$	4	V
Operating temperature range	T <sub>opr</sub>	-25~85	$^{\circ}$
Storage temperature range	$T_{stg}$	-30~100	$^{\circ}$
*3Soldering temperature	T <sub>sol</sub>	260° for 10 seconds	

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

### **Electrical / Optical Characteristics**

(Ta=25°C)

Characteristic	Symbol	<b>Test Condition</b>	Min.	Typ.	Max.	Unit
Forward voltage	$V_{F}$	$I_F = 50mA$	-	1.3	1.5	V
Radiant intensity	I <sub>E</sub>	I <sub>F</sub> = 50mA	20	32	-	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	-	±25	-	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**

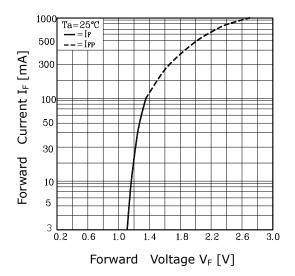
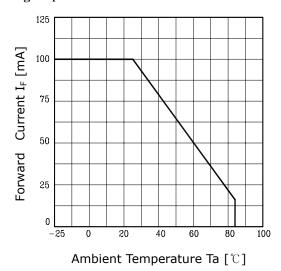


Fig. 2  $I_E$  -  $I_F$ Ta=25°C 500 Radiant Intensity  $I_{\text{E}}$  [mW/Sr] 300 100 50 30

Forward Current I<sub>F</sub> [mA]

 $Fig. \ 3\ I_F-Ta$ 



**Fig.4 Spectrum Distribution** 

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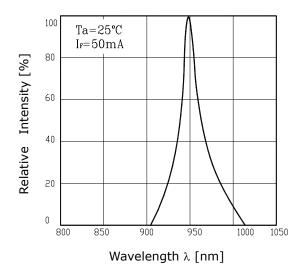
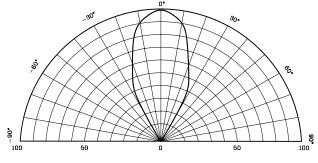


Fig. 5 Radiation Diagram



Relative Radiant Intensity I<sub>E</sub> [%]

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