

5mm Round Type Infrared LED

MODEL NO : IE-5IR3BT2-9

■ Features :

- High radiant intensity
- Peak wavelength $\lambda_P = 940 \text{ nm}$
- High reliability
- 2.54mm Lead spacing

■ Applications :

- Free air transmission system
- Optoelectronic switch
- Floppy disk drive
- Infrared applied system
- Smoke detector

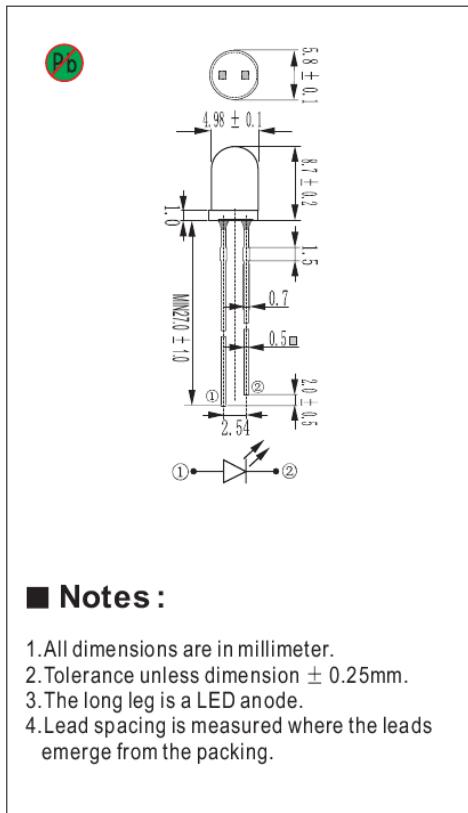
■ Description :

- Infrared Emitting Diode IE-5IR3BT2-9 is a high intensity diode, molded in a water clear plastic package.
- The device is spectrally matched with phototransistor, photodiode and infrared receiver module.

■ Absolute Maximum Ratings ($T_a=25^\circ\text{C}$) :

Parameter	Symbol	Rating	Unit	Remarks
Forward Current	I_F	30	mA	—
Peak Forward Current	I_{FP}	100	A	1/10 Duty Cycle
Reverse Voltage	V_R	5	V	—
Operating Temperature	T_{opr}	-25~+85	°C	—
Storage Temperature	T_{Stg}	-30~+100	°C	—
Soldering Temperature	T_{Sol}	260	°C	<5 seconds
Power Dissipation	P_d	150	mW	

■ Package Dimensions:



■ Notes :

1. All dimensions are in millimeter.
2. Tolerance unless dimension $\pm 0.25 \text{ mm}$.
3. The long leg is a LED anode.
4. Lead spacing is measured where the leads emerge from the packing.

■ Electronic Optical Characteristics : ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Radiant Intensity	E_e	8	16	—	—	$I_F=20 \text{ mA}$
		—	95	—	mW/sr	$I_F=100 \text{ mA}, t_p=100 \mu\text{s}, t_R/T=0.01$
		—	750	—	—	$I_F=1 \text{ A}, t_p=100 \mu\text{s}, t_R/T=0.01$
Peak Wavelength	λ_P	—	940	—	nm	
Spectral Bandwidth		—	50	—	nm	$I_F=20 \text{ mA}$
Forward Voltage	V_F	1.1	1.3	1.5	—	
		—	1.4	1.8	V	$I_F=100 \text{ mA}, t_p=100 \mu\text{s}, t_R/T=0.01$
		—	2.6	4.0	—	$I_F=1 \text{ A}, t_p=100 \mu\text{s}, t_R/T=0.01$
Reverse Current	I_R	—	—	10	μA	$V_R=5 \text{ V}$
View Angle	$2\theta/2$	—	25°	—	deg	$I_F=20 \text{ mA}$

■ Notes : =Pb free Soldering Application, $\text{Pb} < 1000 \text{ ppm}$ (RoHS-Compliant)