

型号: IR3C-12



Features

- ◆ High radiant intensity
- ◆ Peak wavelength= $\lambda_p=940\text{nm}$
- ◆ Low forward voltage
- ◆ High reliability
- ◆ Pd free
- ◆ The product itself will remain within RoHS compliant version

Descriptions

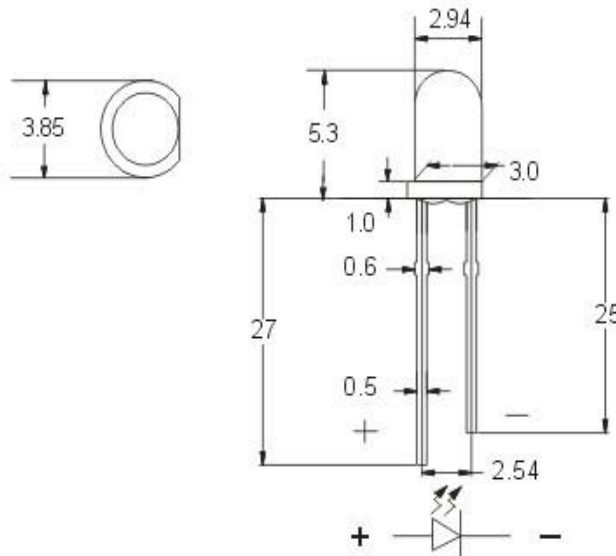
- ◆ Infrared Emitting Diode (IR3C-12) is a high intensity diode, molded in a Water Clear plastic package.
- ◆ The device is spectrally matched with phototransistor, photodiode and infrared receiver module.

Applications

- ◆ Free air transmission system
- ◆ Infrared remote control units with high power requirement
- ◆ Smoke detector
- ◆ Infrared applied system



Package Dimension:



Part NO.	Material	Lens Color
IR5C-45	GaAlAs	Water Clear

Notes:

1. All dimensions are in millimeters (inches).
2. Protruded resin under flange is 1.5mm Max.

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Unit	Notice
Continuous Forward Current	I _F	100	mA	
Peak Forward Current Pulse width ≤ 100 μs and Duty ≤ 1%	I _{FP}	1.0	A	
Reverse Voltage	V _R	5	V	
Operating Temperature	Topr	-40~+85	°C	
Storage Temperature	Tstg	-40~+85	°C	
Soldering Temperature	Tsol	260	°C	4mm from mold body less than 5 seconds
Power Dissipation at(or below) 25°C Free Air Temperature	P _d	150	mW	

Electrical Optical Characteristics:

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Radiant Intensity	I _e		55		mW/sr	I _F =50mA
			110			I _F =100mA, t _p =50 μs, t _p /T=0.01
			500			I _F =1A, t _p =100 μs, t _p /T=0.01
Peak Wavelength	λ _p		940		nm	I _F =50mA
Spectral Bandwidth	Δλ		50		nm	I _F =50mA
Forward Voltage	V _F		1.20	1.40	V	I _F =50mA
			1.40	1.80		I _F =100mA, t _p =100 μs, t _p /T=0.01
			2.6	4.0		I _F =1A, t _p =100 μs, t _p /T=0.01
Reverse Current	I _R			10	μA	V _R =5V
Viewing Angle	2θ _{1/2}		45		Deg	I _F =50mA