

型号: IR5C-45



## 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

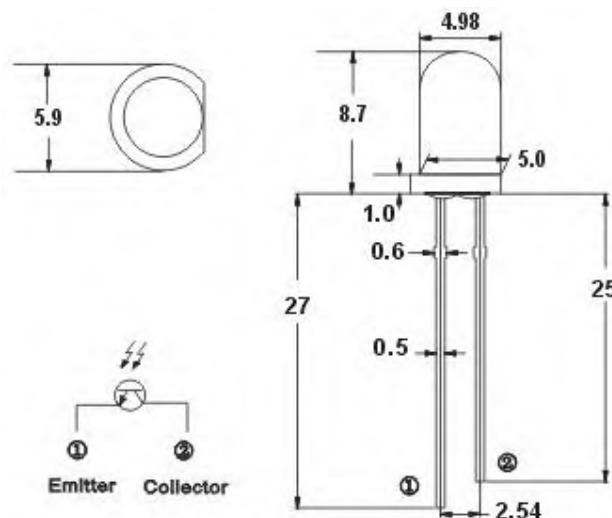
- ◆ Infrared Emitting Diode (IR5C-45) is a high intensity diode, molded in a Water Clear plastic package.
- ◆ The device is spectrally matched with phototransistor, photodiode and infrared receiver module.

## Applications

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



## Package Dimension:



NOTE: TOLERANCE  $\pm 0.5\text{mm}$

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 $\leq 100 \mu s$ and Duty $\leq 1\%$	$I_{FP}$	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			$I_F=100mA, t_p=50 \mu s, t_p/T=0.01$
			500			$I_F=1A, t_p=100 \mu s, t_p/T=0.01$
Peak Wavelength	$\lambda_P$		940		nm	$I_F=50mA$
Spectral Bandwidth	$\Delta \lambda$		50		nm	$I_F=50mA$
Forward Voltage	$V_F$		1.20	1.40	V	$I_F=50mA$
			1.40	1.80		$I_F=100mA, t_p=100 \mu s, t_p/T=0.01$
			2.6	4.0		$I_F=1A, t_p=100 \mu s, t_p/T=0.01$
Reverse Current	$I_R$			10	$\mu A$	$V_R=5V$
Viewing Angle	$2 \theta_{1/2}$		45		Deg	$I_F=50mA$