

RoHS
Compliant



Features

- High radiant power and high radiant intensity.
- Standard T-1 3/4(5mm)package.
- Peak wavelength $\lambda_p=940\text{nm}$.
- Good spectral matching to si-photodetector.

Applications

- Remote Control.
- Automatic Control System.

Specifications

Radiant angle : 20°
Lens Appearance : Blue Transparent.

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

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	150	mW
Forward Current	I_F	100	mA
Peak Forward Current ^{*1}	I_{FP}	1	A
Reverse Voltage	V_R	5	V
Operating Temperature	T_{OPR}	-40°C to +85°C	
Storage Temperature	T_{STG}	-40°C to +85°C	

*1 (300pps 10us pulse)

Electrical / Optical Characteristics at $T_A = 25^\circ\text{C}$

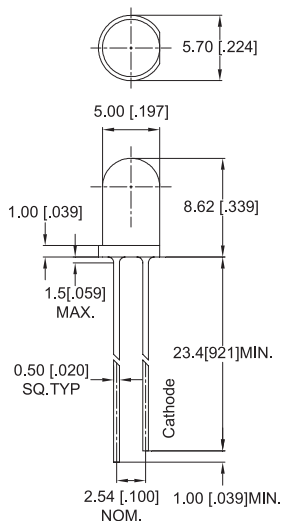
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Radiant Intensity	I_e	$I_F=50\text{mA}$	19.42	55	-	mW/sr
Forward Voltage	V_F	$I_F=50\text{mA}$	-	1.25	1.5	V
Reverse Current	I_R	$V_R=5\text{V}$	-	-	100	uA
Peak Wavelength	λ_p	$I_F=50\text{mA}$	-	940	-	nm
Spectral Line Half-Width	$\Delta\lambda$	$I_F=50\text{mA}$	-	50	-	nm
Viewing Angle	$2\theta_{1/2}$	$I_F=20\text{mA}$	-	20	-	Deg.

Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or dominant wavelength), the typical accuracy of the sorting process is as follows:

1. Dominant Wavelength: +/-1nm
2. Chromatic Coordinates: +/-0.01
3. Luminous Intensity: +/-15%
4. Forward Voltage: +/-0.1V

Dimensions



Notes:

1. Tolerance is $\pm 0.25\text{mm}$ (0.01') unless otherwise specified.
2. Lead spacing is measured where the leads emerge from the package.
3. Specifications are subject to change without notice.

Dimensions : Millimetres (Inches)

Typical Electrical/Optical Characteristics Curves

Fig.1 Spectral Distribution

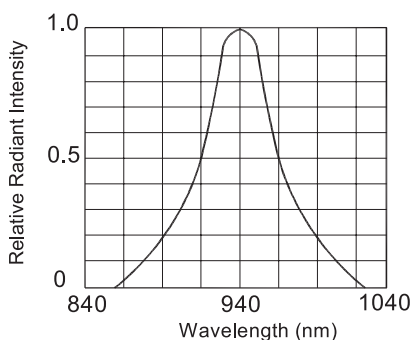


Fig.2 Forward Current Vs Ambient Temperature

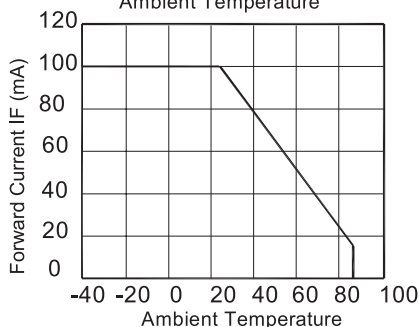


Fig.3 Forward Current Vs Forward Voltage

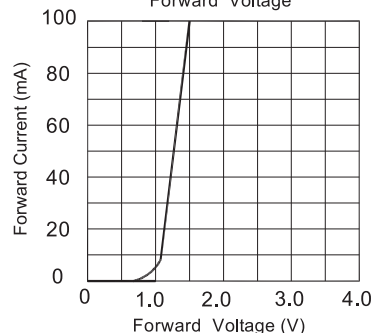


Fig.4 Relative Radiant Intensity Vs Ambient Temperature

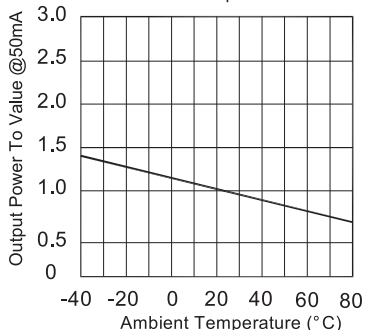


Fig.5 Relative Radiant Intensity Vs Forward Current

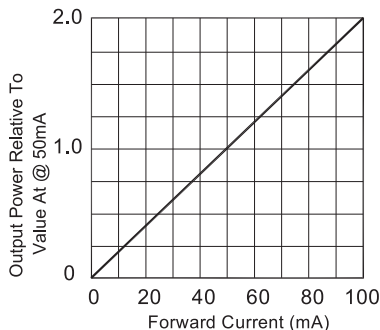
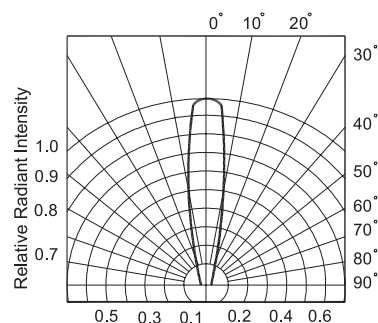


FIG.6 Radiant Diagram



Part Number Table

Description	Part Number
Infrared Emitting Diode, Blue, Transperant, 940nM	MP017021

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