

Infrared Emitting Diode

Module No.: IE-372P

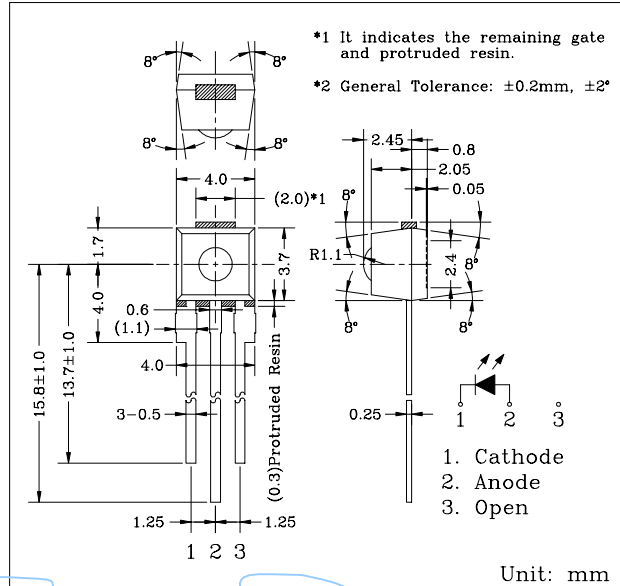
1. General Description:

IE-372P is a high output power GaAlAs infrared light emitting diode, mounted in a side looking epoxy package. It emits narrow band of radiation peaking at 940nm.

2. Features

- Compact
- High output power
- Low cost
- Used with WPT-342P

Dimensions



3. Absolute Maximum Ratings

($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Ratings	Unit
Forward Current	I_F	50	mA
Pulse Forward Current	I_{FP}	1	A
Reverse Voltage	V_R	4	V
Power Dissipation	P_D	100	mW
Operating Temperature	T_{opr}	$-20 \sim +85$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-30 \sim +85$	$^\circ\text{C}$
Soldering Temperature *2	T_{sol}	240	$^\circ\text{C}$

*1 Pulse width $\leq 100\mu\text{sec}$. Duty ratio = 0.01

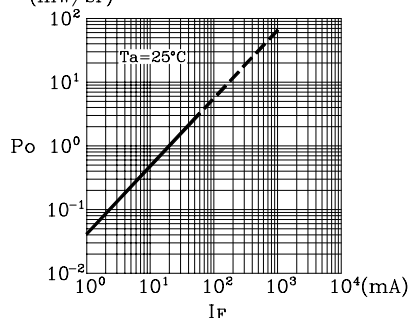
*2 At the position of 2mm from the bottom of the package within 5 seconds.

4. Electro-optical Characteristics

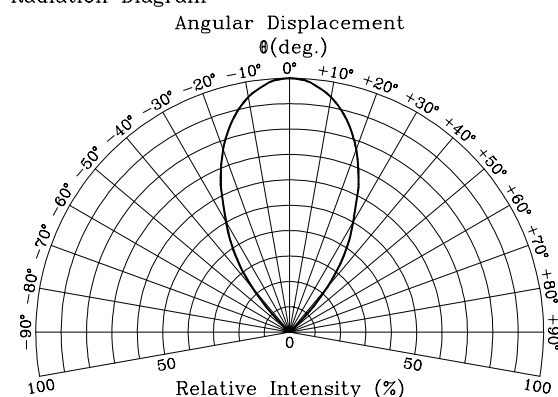
($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Testing Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 30\text{mA}$		1.2	1.5	V
Reverse Current	I_R	$V_R = 4\text{V}$			10	μA
Radiant Intensity	P_o	$I_F = 20\text{mA}$	0.2		3.6	mW/sr
Half Power Beam Angle	$\Delta\theta$			± 30		deg.
Peak Emission Wavelength	λ_p	$I_F = 20\text{mA}$		940		nm
Spectral Bandwidth at 50%	$\Delta\lambda$	$I_F = 20\text{mA}$		50		nm

Radiant Intensity vs
Forward Current
(mW/sr)



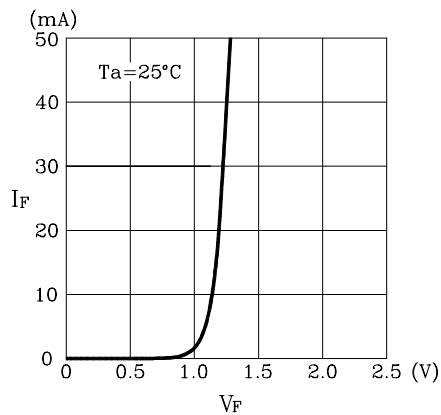
Radiation Diagram



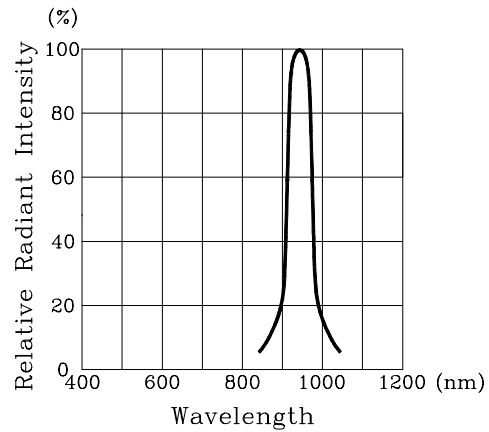
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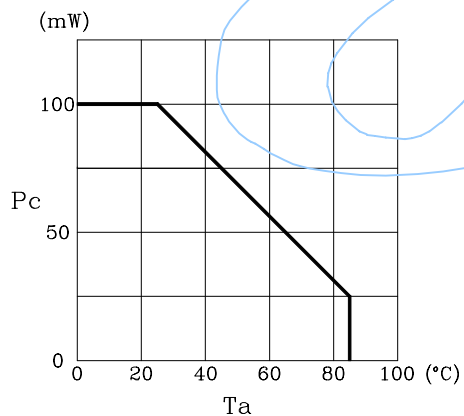
Forward Current vs
Forward Voltage



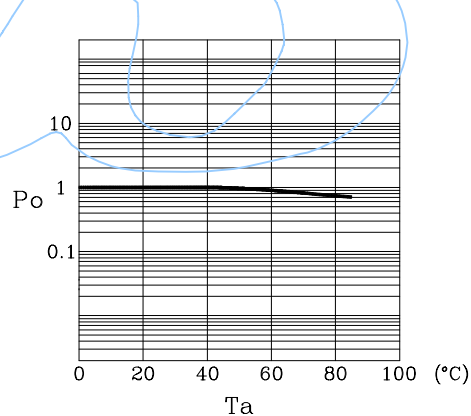
Spectral Distribution



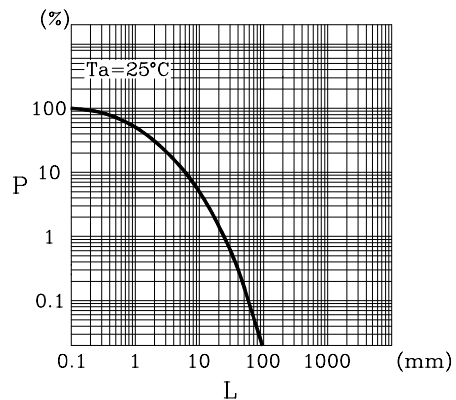
Power Dissipation vs
Ambient Temperature



Relative Output power vs
Ambient Temperature



Relative Power vs
Distance to Detector



Distance to Detector Test Conditions

