

GaAlAs/GaAs HIGH POWER SIDE LOOK PACKAGE INFRARED EMITTING DIODE

MIE-114A1

Description

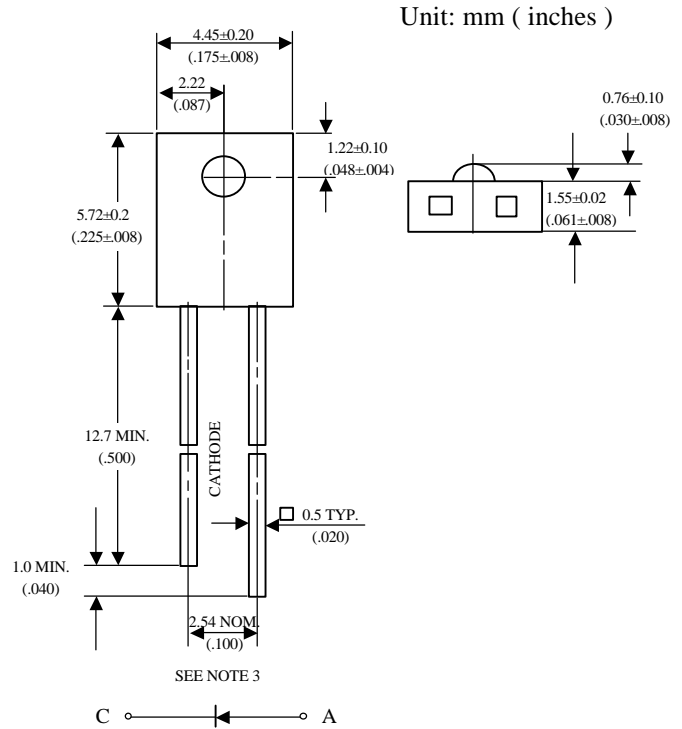
The MIE-114A1 is a GaAs infrared emitting diode molded in clear, lensed side looking package .

The MIE-114A1 provides a broad range of intensity selection .

Features

- Selected to specific on-line intensity and radiant intensity ranges
- Low cost, plastic side looking package
- Mechanically and spectrally matched to the MID-11422 of phototransistor .

Package Dimensions



NOTES :

1. Tolerance is ± 0.25 mm (.010") unless otherwise noted.
2. Protruded resin under flange is 1.5 mm (.059") max.
3. Lead spacing is measured where the leads emerge from the package.

Absolute Maximum Ratings

@ $T_A = 25^\circ\text{C}$

Parameter	Maximum Rating	Unit
Power Dissipation	75	mW
Peak Forward Current(300pps,10 μ s pulse)	1	A
Continuos Forward Current	50	mA
Reverse Voltage	5	V
Operating Temperature Range	-55 $^\circ\text{C}$ to +100 $^\circ\text{C}$	
Storage Temperature Range	-55 $^\circ\text{C}$ to +100 $^\circ\text{C}$	
Lead Soldering Temperature	260 $^\circ\text{C}$ for 5 seconds	

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Optical-Electrical Characteristics

@ $T_A=25^{\circ}\text{C}$

Parameter	Test Conditions	Symbol	Min.	Typ .	Max.	Unit
Radiant Incidance	$I_F=20\text{mA}$	Ee	-	0.8	-	mW/cm^2
Forward Voltage	$I_F=20\text{mA}$	V_F	-	1.2	1.35	V
Reverse Current	$V_R=5\text{V}$	I_R	-	-	100	μA
Peak Wavelength	$I_F=20\text{mA}$	λ_p	-	940	-	nm
Spectral Bandwidth	$I_F=20\text{mA}$	$\Delta\lambda$	-	50	-	nm
View Angle	$I_F=20\text{mA}$	$2\theta_{1/2}$	-	80	-	deg .

Typical Optical-Electrical Characteristic Curves

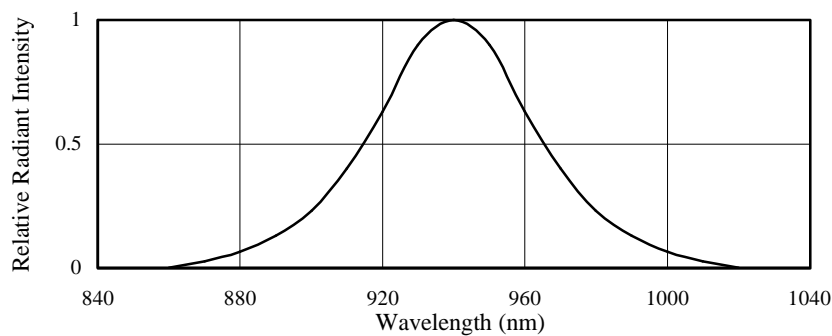


FIG.1 SPECTRAL DISTRIBUTION

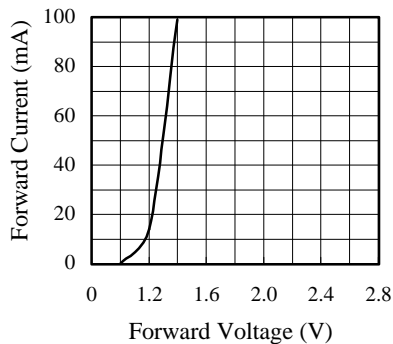


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE

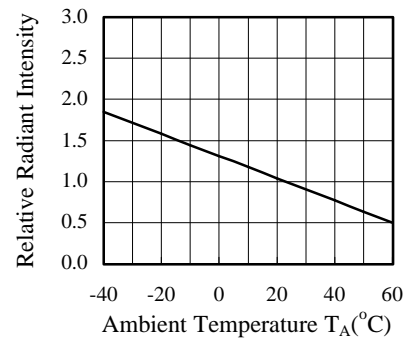


FIG.3 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

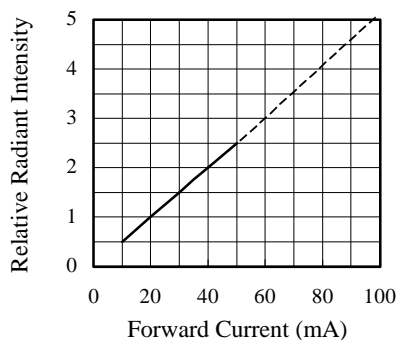


FIG.4 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

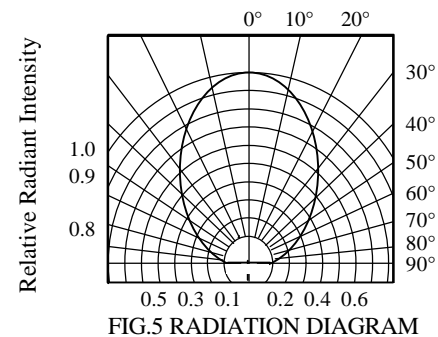


FIG.5 RADIATION DIAGRAM