

# AlGaAs/GaAs High POWER SIDE LOOK PACKAGE INFRARED EMITTING DIODE

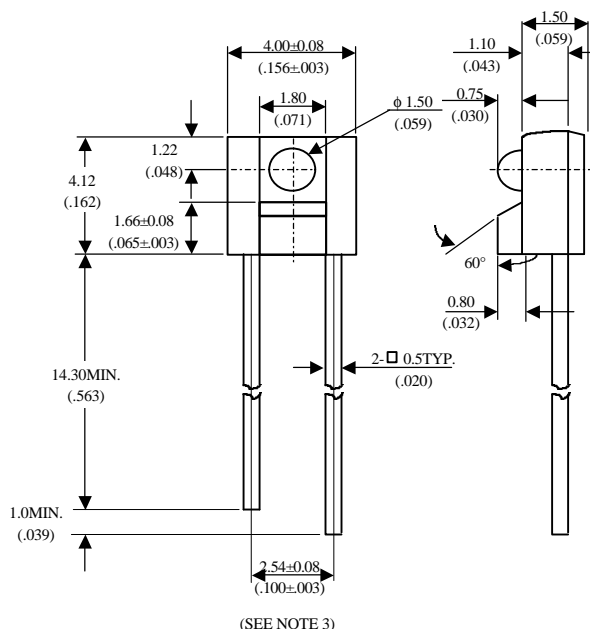
## MIE-144A4

### Description

The MIE-144A4 is a GaAs infrared emitting diode with AlGaAs window layer, molded in clear, lensed side looking package. The MIE-144A4 provides a broad range of intensity selection.

### Package Dimensions

Unit: mm( inches)



(SEE NOTE 3)

C ← → A

### 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 .

Notes :

1. All dimensions are in millimeters.(inches).
2. Protruded resin under flange is 1.5 mm (0.059") max.
3. Lead spacing is measured where the leads emerge from the package.

### Absolute Maximum Ratings

@ T<sub>A</sub>=25°C

Parameter	Maximum Rating	Unit
Power Dissipation	75	mW
Peak Forward Current	1	A
Continuos Forward Current	50	mA
Reverse Voltage	5	V
Operating Temperature Range	-55°C to +100°C	
Storage Temperature Range	-55°C to +100°C	
Lead Soldering Temperature	260°C for 5 seconds	

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Optical-Electrical Characteristics

@ T<sub>A</sub>=25°C

Parameter	Test Conditions	Symbol	Min.	Typ .	Max.	Unit
Radiant Incidance	I <sub>F</sub> =20mA	E <sub>e</sub>	-	0.6	-	mW/cm <sup>2</sup>
Forward Voltage	I <sub>F</sub> =20mA	V <sub>F</sub>	-	1.2	1.45	V
Reverse Current	V <sub>R</sub> =5V	I <sub>R</sub>	-	-	100	μA
Peak Wavelength	I <sub>F</sub> =20mA	λ <sub>p</sub>	-	940	-	nm
Spectral Bandwidth	I <sub>F</sub> =20mA	Δλ	-	50	-	nm
Half View Angle	I <sub>F</sub> =20mA	2θ <sub>1/2</sub>	-	80	-	deg .

Typical Optical-Electrical Characteristic Curves

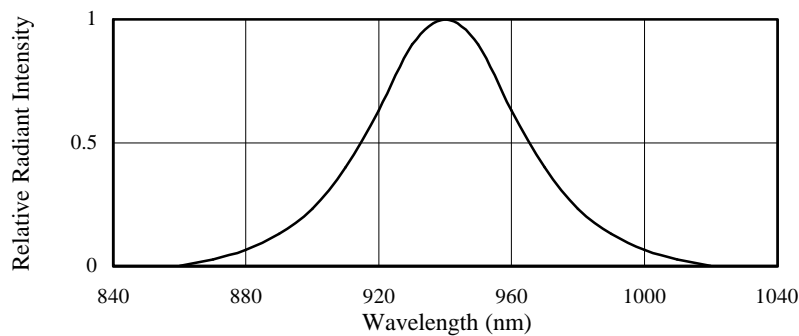


FIG.1 SPECTRAL DISTRIBUTION

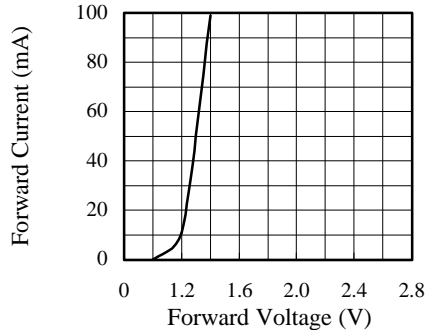


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE

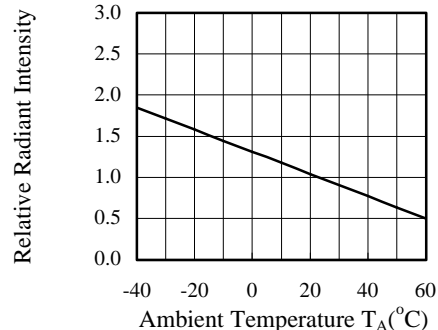


FIG.3 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

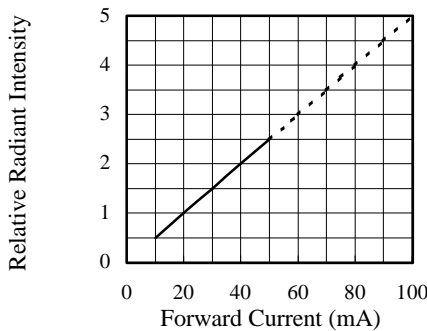


FIG.4 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

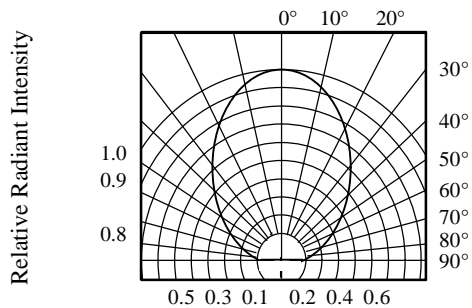


FIG.5 RADIATION DIAGRAM