

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

**MIE-111A1**

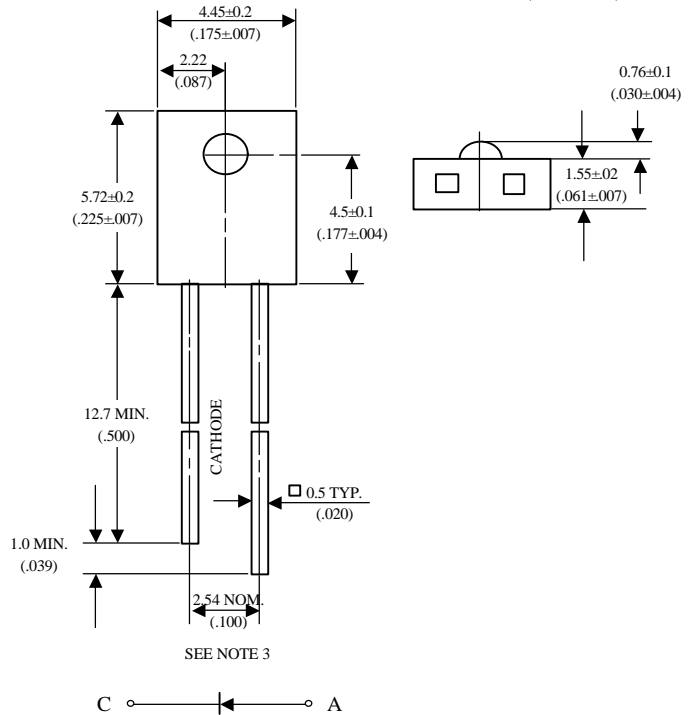
## Description

The MIE-111A1 is a AlGaAs/GaAs infrared emitting diode molded in diffused, lensed side looking package .

The MIE-111A1 provides a broad range of intensity selection .

## Package Dimensions

Unit: mm ( inches )



## Features

- Selected to specific on-line intensity and radiant intensity
- Low cost, plastic side looking package

## NOTES :

1. Tolerance is  $\pm 0.25$  mm ( $.010$ " ) unless otherwise noted.
2. 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	1	A
Continuous 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	

**UNI**

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02/04/2002

## 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	1.35	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
View Angle	I <sub>F</sub> =20mA	2θ <sub>1/2</sub>	-	100	-	deg .

## Typical Optical-Electrical Characteristic Curves

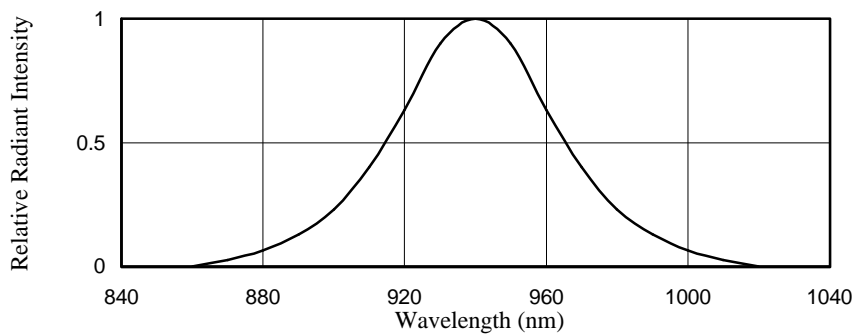


FIG.1 SPECTRAL DISTRIBUTION

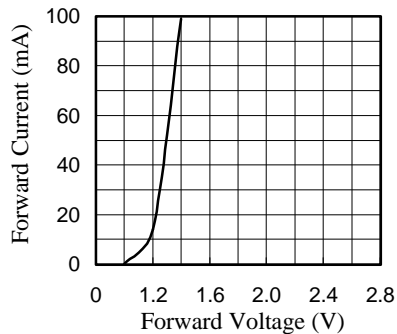


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE

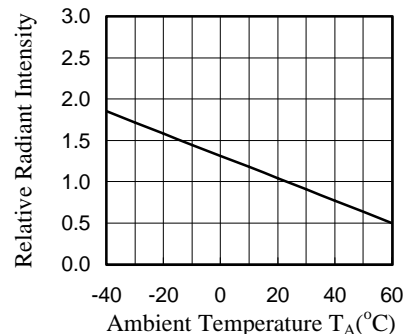


FIG.3 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

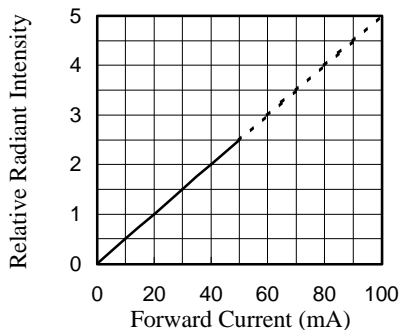


FIG.4 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

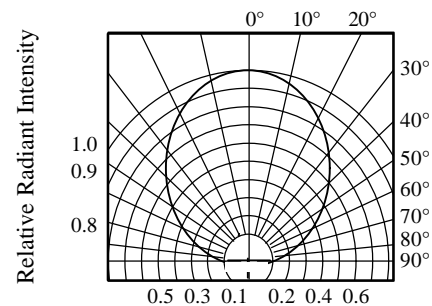


FIG.5 RADIATION DIAGRAM