

# AlGaAs/GaAs SIDE LOOK PACKAGE INFRARED EMITTING DIODE

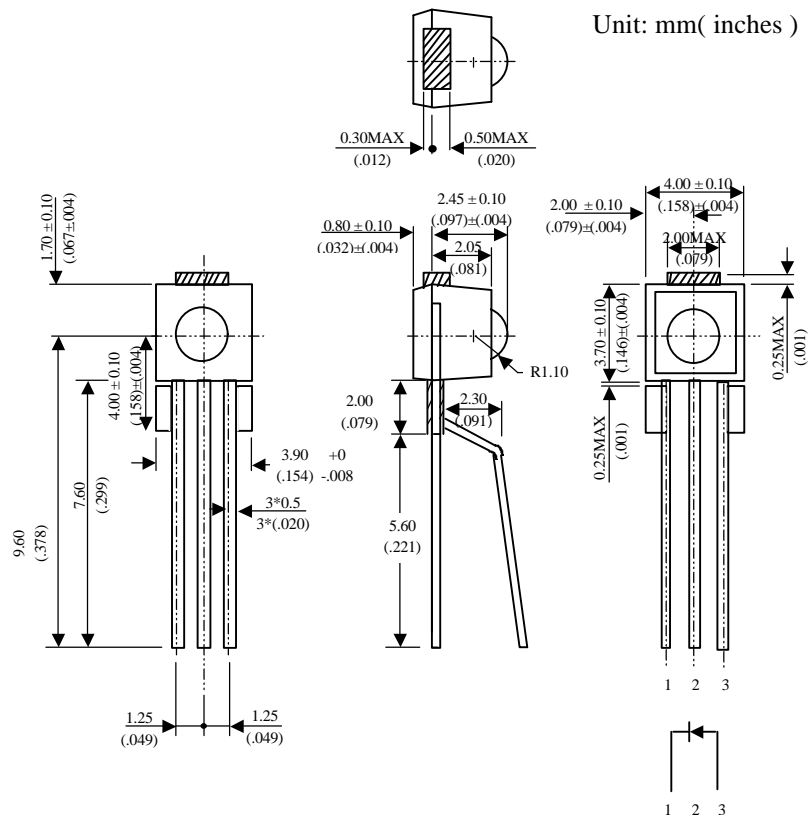
## MIE-134A1

### Description

The MIE-134A1 is a AlGaAs/GaAs infrared emitting diode molded in clear, lensed side looking package. The MIE-134A1 provides a broad range of intensity selection .

### Package Dimensions

Unit: mm( inches )



### Features

- Selected to specific on-line intensity and radiant intensity ranges
- Low cost, plastic side looking package
- Mechanically and spectrally matched to The MID-13A45 of phototransistor .

#### NOTES :

1. All dimensions are in millimeters.
2. Tolerance is  $\pm 0.25$ mm unless otherwise noted .
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 $\mu$ 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	$I_F=20\text{mA}$	$E_e$	-	1.2	-	$\text{mW}/\text{cm}^2$
Forward Voltage	$I_F=20\text{mA}$	$V_F$	-	1.2	1.35	V
Reverse Current	$V_R=5\text{V}$	$I_R$	-	-	100	$\mu\text{A}$
Peak Wavelength	$I_F=20\text{mA}$	$\lambda$	-	940	-	nm
Spectral Bandwidth	$I_F=20\text{mA}$	$\Delta\lambda$	-	50	-	nm
View Angle	$I_F=20\text{mA}$	$2\theta_{1/2}$	-	30	-	deg .

## Typical Optical-Electrical Characteristic Curves

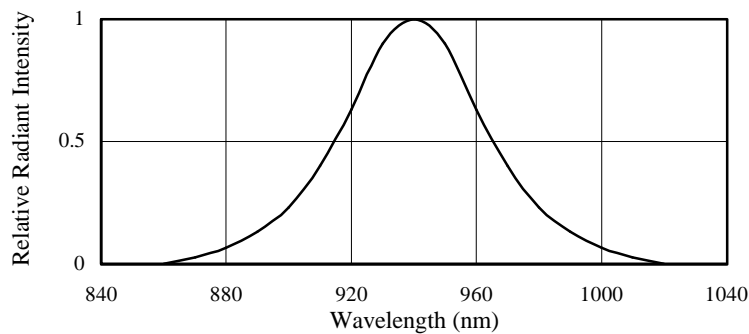


FIG.1 SPECTRAL DISTRIBUTION

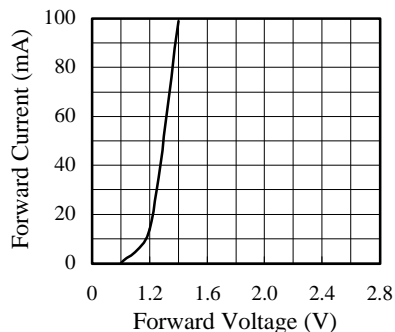


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE

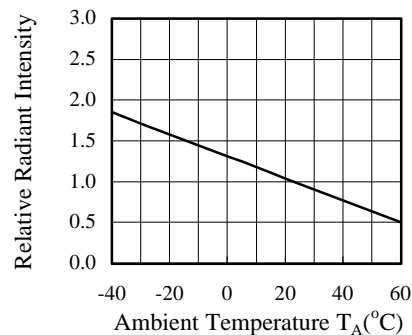


FIG.3 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

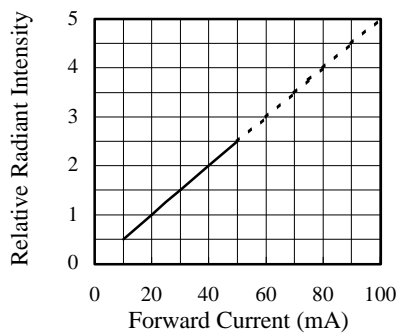


FIG.4 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

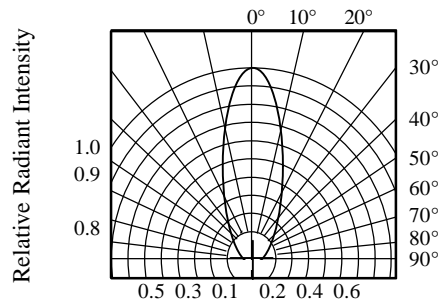


FIG.5 RADIATION DIAGRAM