

# GaAlAs T-1 PACKAGE INFRARED EMITTING DIODE

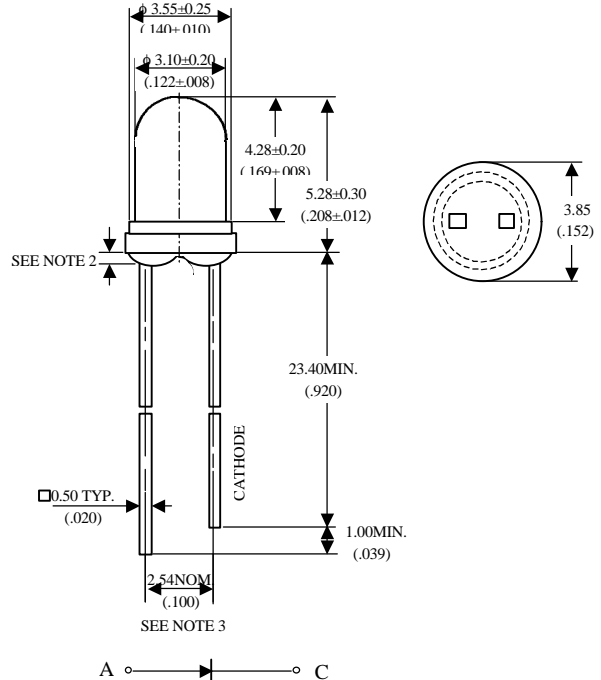
MIE-324L3

## Description

The MIE-324L3 is an infrared emitting diode in GaAlAs on GaAlAs technology molded in water clear plastic package.

## Package Dimensions

Unit : mm ( inches )



## Features

- High radiant power and high radiant intensity
- Suitable for DC and high pulse current operation
- Standard T-1 ( $\phi 3$ mm) package, radiant angle:  $40^\circ$
- Peak wavelength  $\lambda_p = 880$  nm
- Good spectral matching to si-photodetector

Notes :

1. Tolerance is  $\pm 0.25$  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	120	mW
Peak Forward Current(300pps,10 $\mu$ s pulse)	1	A
Continuous Forward Current	100	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<sub>A</sub>=25°C

Parameter	Test Conditions	Symbol	Min.	Typ .	Max.	Unit
Radiant Intensity	I <sub>F</sub> =20mA	I <sub>e</sub>		1.5		mW/sr
Forward Voltage	I <sub>F</sub> =50mA	V <sub>F</sub>		1.4	1.7	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>		880		nm
Spectral Bandwidth	I <sub>F</sub> =20mA	Δλ		80		nm
View Angle	I <sub>F</sub> =20mA	2θ <sub>1/2</sub>		40		deg .

Typical Optical-Electrical Characteristic Curves

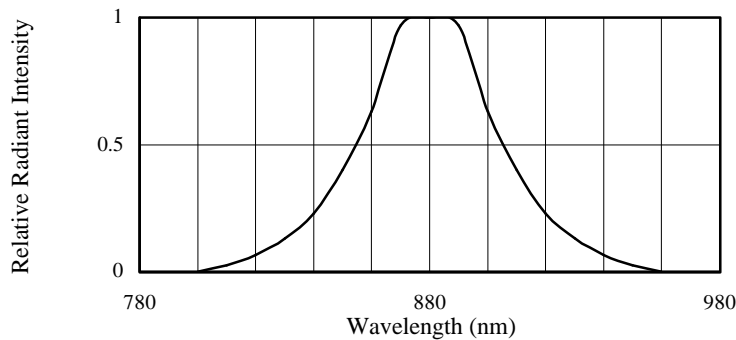


FIG.1 SPECTRAL DISTRIBUTION

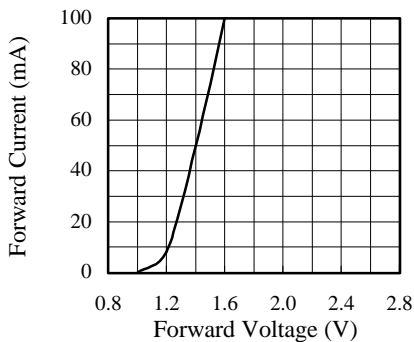


FIG.3 FORWARD CURRENT VS. FORWARD VOLTAGE

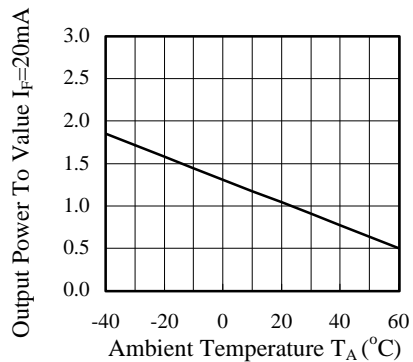


FIG.4 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

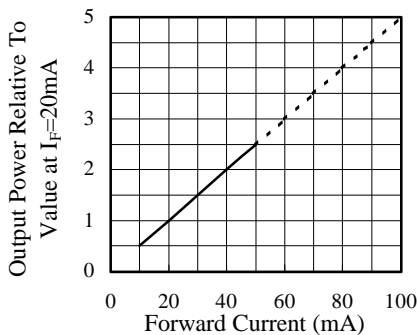


FIG.5 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

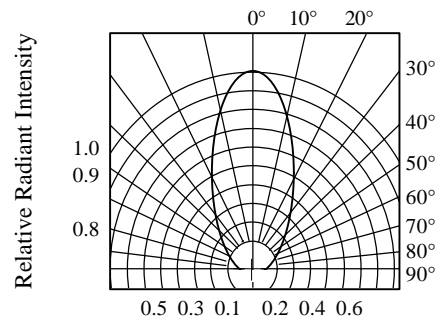


FIG.5 RADIATION DIAGRAM