

AlGaAs/GaAs HIGH POWER SIDE LOOK PACKAGE INFRARED EMITTING DIODE

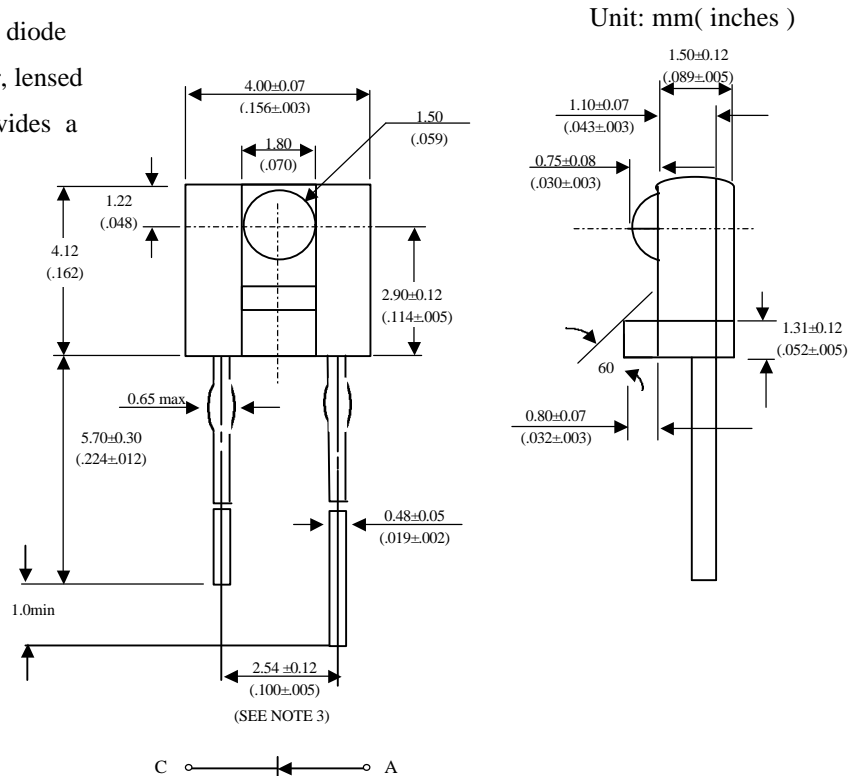
MIE-144A1

Description

The MIE-144A1 is a GaAs infrared emitting diode with AlGaAs Window layer, molded in clear, lensed side looking package. The MIE-144A1 provides a broad range of intensity selection .

Features

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



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_A=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 | |

UNI

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Optical-Electrical Characteristics

@ T_A=25°C

| Parameter | Test Conditions | Symbol | Min. | Typ . | Max. | Unit |
|--------------------|----------------------|-------------------|------|-------|------|--------------------|
| Radiant Incidance | I _F =20mA | E _e | - | 0.6 | - | mW/cm ² |
| Forward Voltage | I _F =20mA | V _F | - | 1.2 | 1.35 | V |
| Reverse Current | V _R =5V | I _R | - | - | 100 | μA |
| Peak Wavelength | I _F =20mA | λ _p | - | 940 | - | nm |
| Spectral Bandwidth | I _F =20mA | Δλ | - | 50 | - | nm |
| Half View Angle | I _F =20mA | 2θ _{1/2} | - | 80 | - | deg . |

Typical Optical-Electrical Characteristic Curves

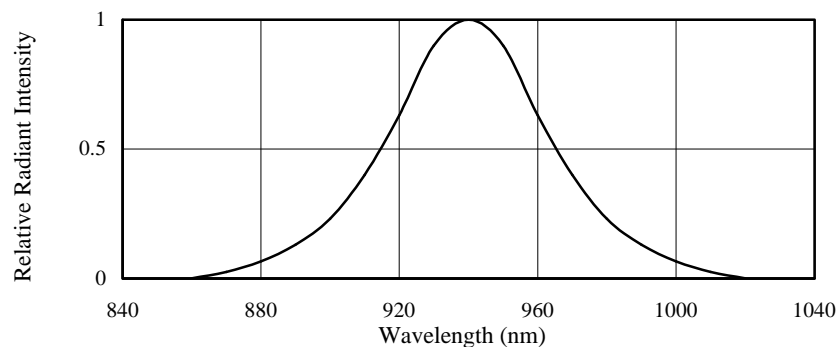


FIG.1 SPECTRAL DISTRIBUTION

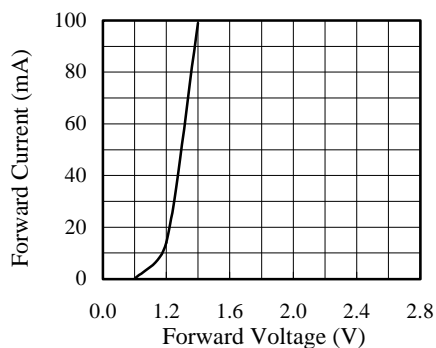


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE

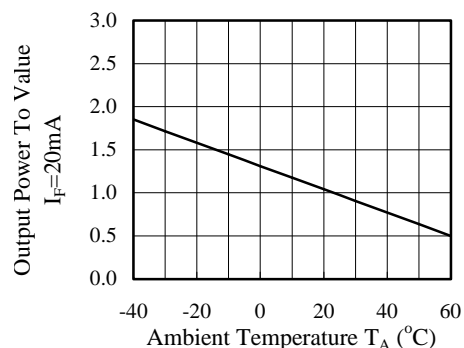


FIG.3 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

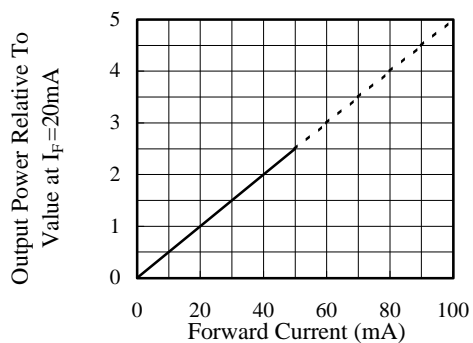


FIG.4 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

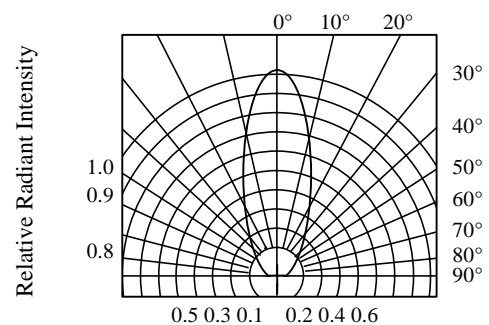


FIG.5 RADIATION DIAGRAM