

AlGaAs/GaAs HIGH POWER SIDE LOOK PACKAGE INFRARED EMITTING DIODE

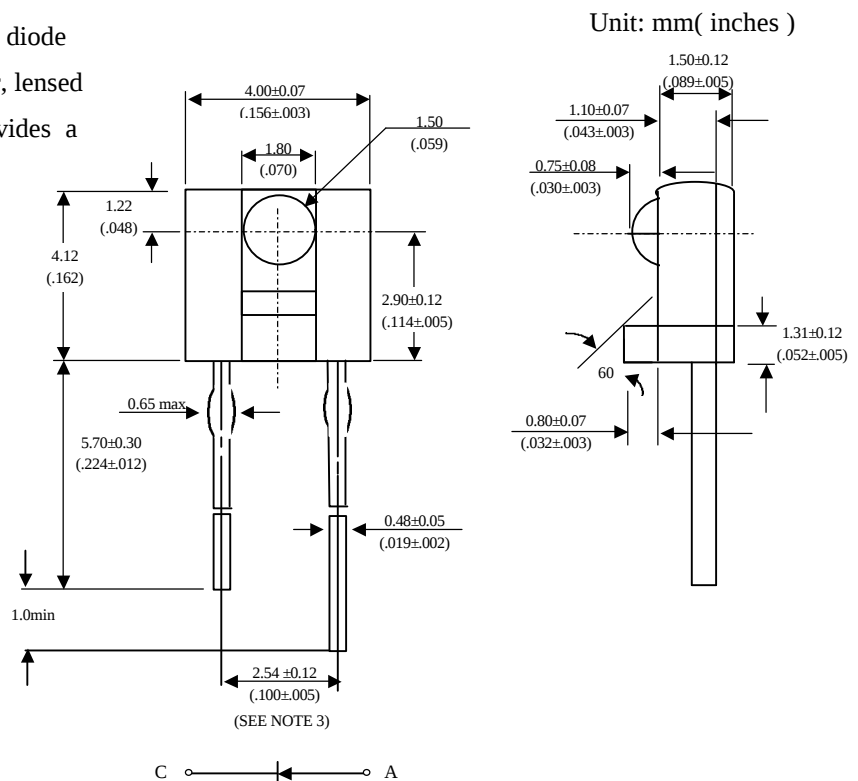
MIE-144A1

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



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	

Optical-Electrical Characteristics

@ $T_A=25^{\circ}\text{C}$

Parameter	Test Conditions	Symbol	Min.	Typ .	Max.	Unit
Radiant Incidence	$I_F=20\text{mA}$	Ee	-	0.6	-	mW/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	μA
Peak Wavelength	$I_F=20\text{mA}$	λ_p	-	940	-	nm
Spectral Bandwidth	$I_F=20\text{mA}$	$\Delta\lambda$	-	50	-	nm
Half View Angle	$I_F=20\text{mA}$	$2\theta_{1/2}$	-	80	-	deg .

Typical Optical-Electrical Characteristic Curves

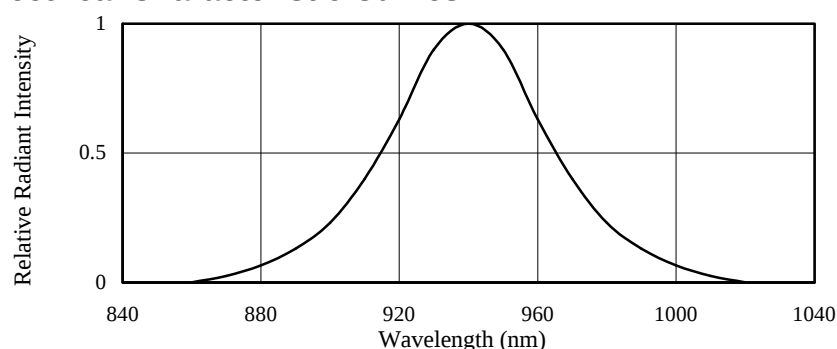


FIG.1 SPECTRAL DISTRIBUTION

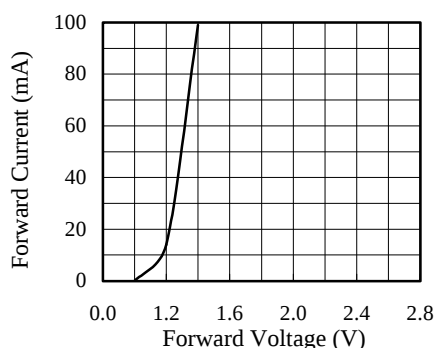


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE

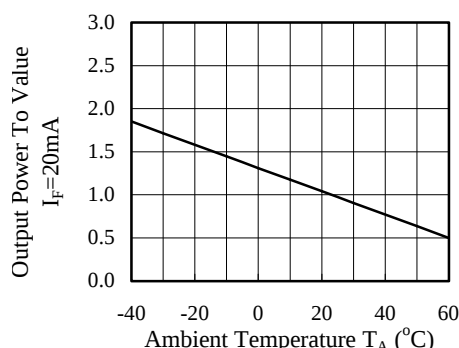


FIG.3 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

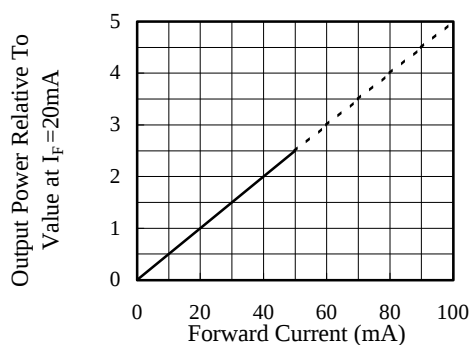


FIG.4 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

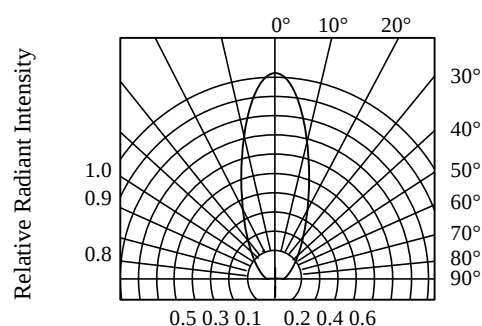


FIG.5 RADIATION DIAGRAM