AlGaAs/GaAs T-1 PACKAGE INFRARED EMITTING DIODE **MIE-384A4**

Description

The MIE-384A4 is an infrared emitting diode utilizing GaAs with AlGaAs window coating chip technology.

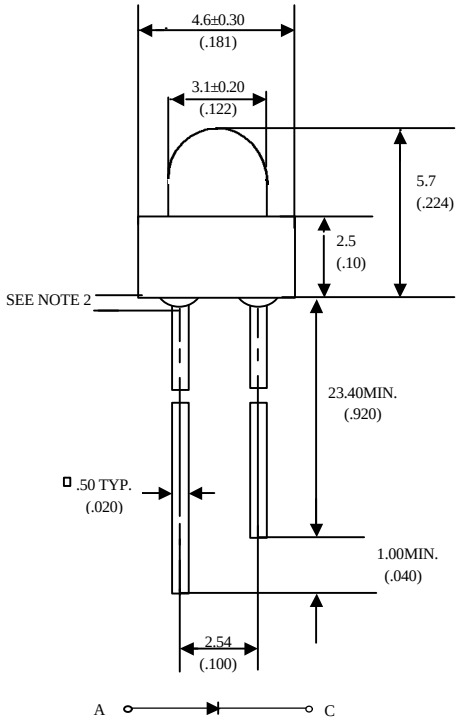
It is molded in water clear plastic package.

Features

- High radiant power and high radiant intensity
- Suitable for DC and high pulse current operation
- Special T-1 (ϕ 3mm) package
- Peak wavelength λ_p = 940 nm
- Good spectral matching to si-photodetector
- Radiant angle : ±14°

Package Dimensions

Unit : mm (inches)



Notes :
1. Tolerance is ± 0.25 mm (.010") unless otherwise noted.
2. Protruded resin under flange is 0.4 mm (.0157") 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	120	mW
Peak Forward Current	1	A
Continuous Forward Current	100	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°C

Parameter	Test Conditions	Symbol	Min.	Typ .	Max.	Unit
Radiant Intensity	I_F=20mA	Ie		2.0	-	mW/sr
Forward Voltage	I_F=50mA	V_F	-	1.3	1.5	V
Reverse Current	V_R=5V	I_R	-	-	100	μA
Peak Wavelength	I_F=20mA	λp	-	940	-	nm
Spectral Bandwidth	I_F=20mA	Δλ	-	50	-	nm
View Angle	I_F=20mA	$2\theta_{1/2}$	-	28	-	deg .

Typical Optical-Electrical Characteristic Curves

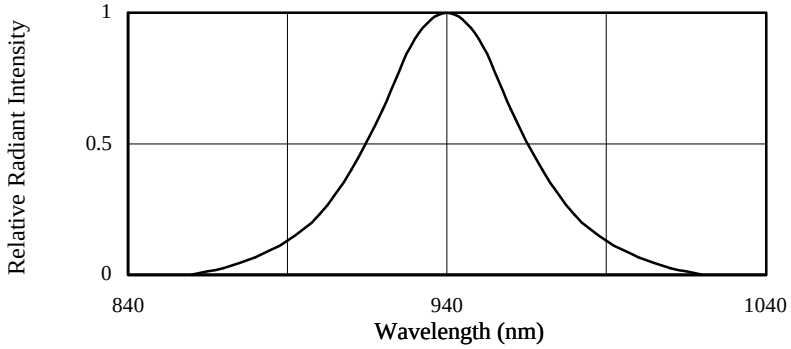


FIG.1 SPECTRAL DISTRIBUTION

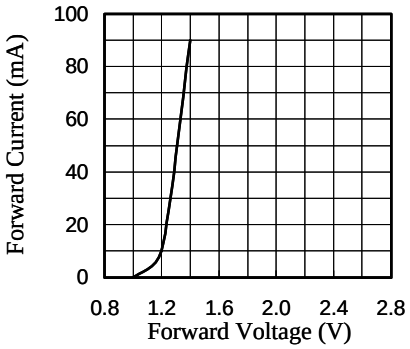


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE

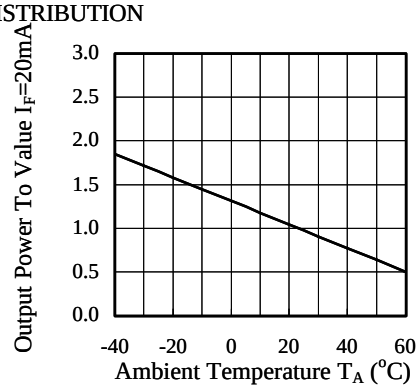


FIG.3 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

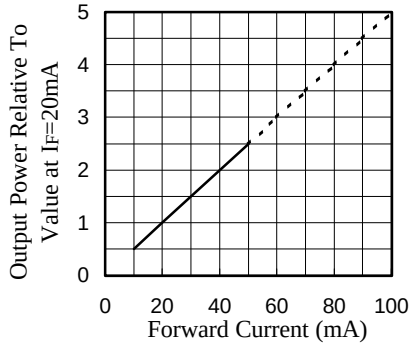


FIG.4 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

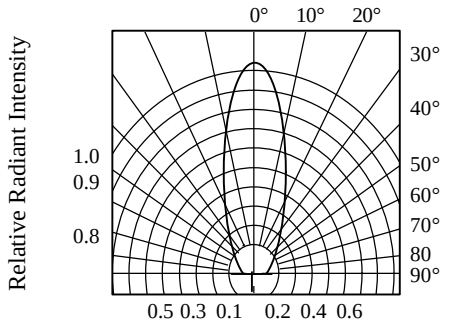


FIG.5 RADIATION DIAGRAM