GaAs HIGH POWER T-1 3/4 PACKAGE INFRARED EMITTING DIODE

MIE-544A4

Description

The MIE-544A4 is an infrared emitting diode utilizing GaAs with AlGaAs window coating chip technology.

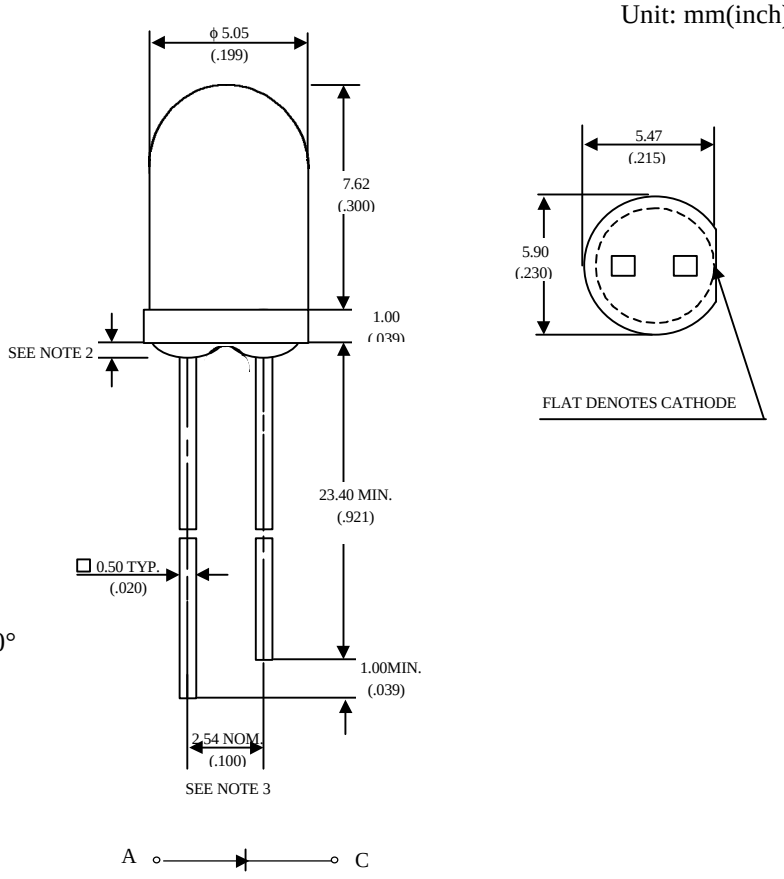
It is molded in water clear plastic package.

Features

- High radiant power and high radiant intesity
- Suitable for DC and high pulse current operation
- Standard T-1 3/4 (ϕ5mm) package, radiant angle : 40°
- Peak wavelength λ_p =940 nm
- Good spectral matching to si-photodetecto

Package Dimensions

Unit: mm(inch)



Notes :
1. Tolerance is ±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°C

Parameter	Maximum Rating	Unit
Power Dissipation	100	mW
Peak Forward Current	1	A
Continuous 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°C

Parameter	Test Conditions	Symbol	Min.	Typ .	Max.	Unit
Radiant Intensity	I_F=20mA	Ie	1.0	2.0		mW/sr
Forward Voltage	I_F=50mA	V_F		1.30	1.5	V
Reverse Current	V_R=5V	I_R			100	μA
Peak Wavelength	I_F=20mA	λ		940		nm
Spectral Bandwidth	I_F=20mA	Δλ		50		nm
View Angle	I_F=20mA	$2\theta_{1/2}$		40		deg .

Typical Optical-Electrical Characteristic Curves

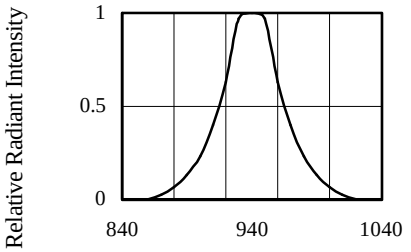


FIG.1 SPECTRAL DISTRIBUTION

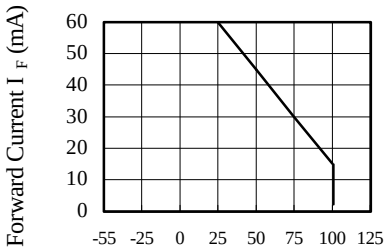


FIG.2 FORWARD CURRENT VS. AMBIENT TEMPERATURE

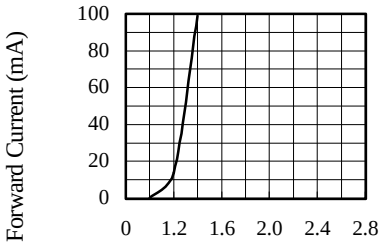


FIG.3 FORWARD CURRENT VS. FORWARD VOLTAGE

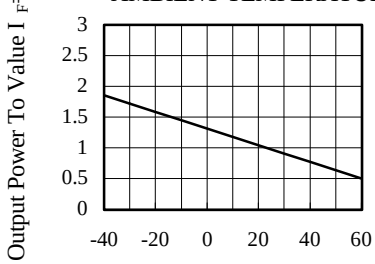


FIG.4 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

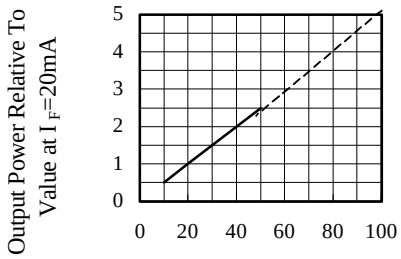


FIG.5 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

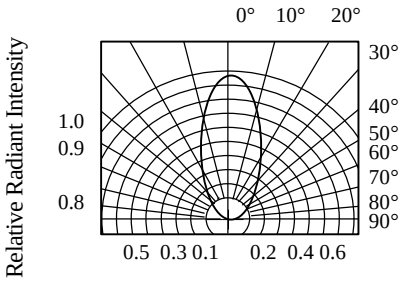


FIG.6 RADIATION DIAGRAM