AlGaAs/GaAs HIGH POWER T-1 3/4 PACKAGE INFRARED EMITTING DIODE **MIE-534A4**

Description

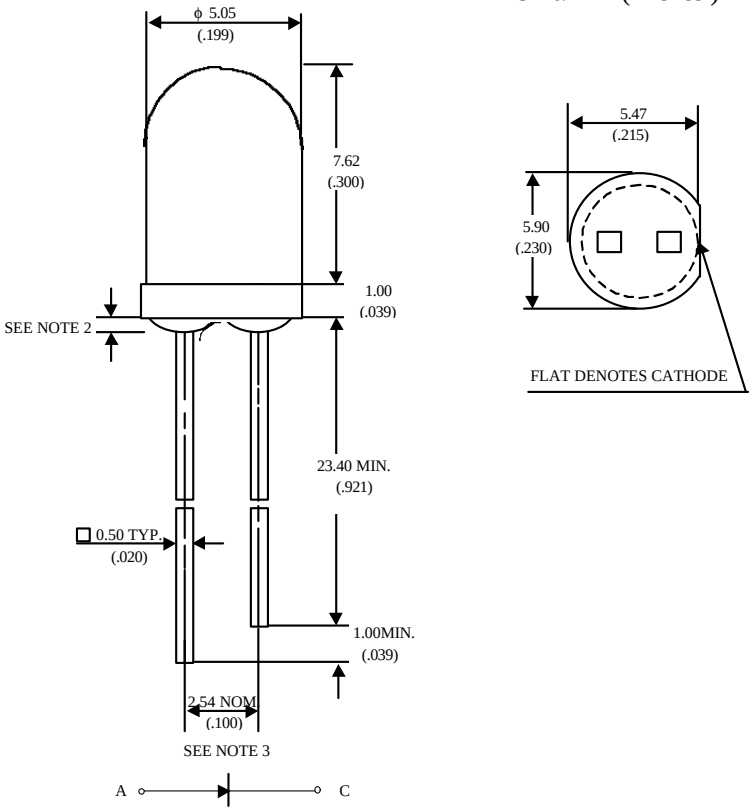
The MIE-534A4 is an infrared emitting diode utilizing GaAs with AlGaAs window coating chip technology. It is molded in water clear plastic package.

Features

- High radiant power and high radiant intensity
- Suitable for DC and high pulse current operation
- Standard T-1 3/4 (ϕ 5mm) package, radiant angle : 30°
- Peak wavelength λ_p = 940 nm
- Good spectral matching to si-photodetector

Package Dimensions

Unit: mm (inches)



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

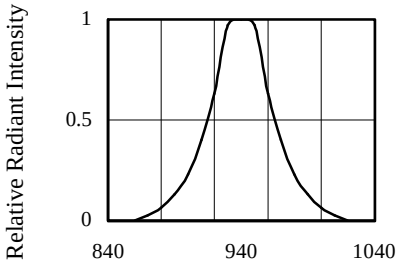
Parameter	Maximum Rating	Unit
Power Dissipation	120	mW
Peak Forward Current(300pps,10μs pulse)	1	A
Continuos Forward Current	100	mA
Reverse Voltage	5	V
Operating Temperature Range	-55°C to +100°C	
Storage Temperature Range	-55°C to +100°C	
Lead Soldering Temperature	260°C for 5 seconds	

Optical-Electrical Characteristics

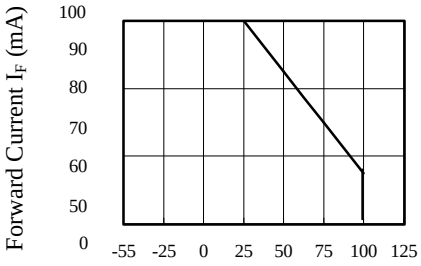
@ T_A=25°C

Parameter	Test Conditions	Symbol	Min.	Typ .	Max.	Unit
Radiant Intensity	I_F=20mA	Ie	2.0	3.5		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	$2\theta_{1/2}$		30		deg .

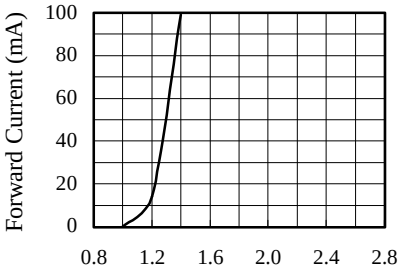
Typical Optical-Electrical Characteristic Curves



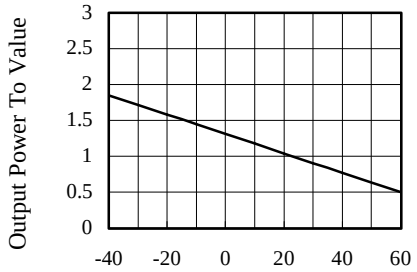
Wavelength (nm)
FIG.1 SPECTRAL DISTRIBUTION



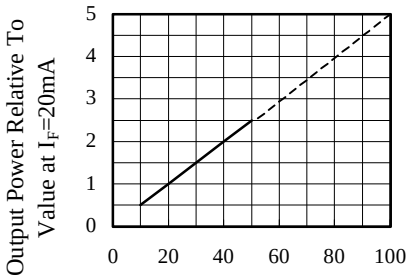
Ambient Temperature T_A(°C)
FIG.2 FORWARD CURRENT VS.
AMBIENT TEMPERATURE



Forward Voltage (V)
FIG.3 FORWARD CURRENT VS.
FORWARD VOLTAGE



Ambient Temperature T_A (°C)
FIG.4 RELATIVE RADIANT INTENSITY
VS. AMBIENT TEMPERATURE



Forward Current (mA)
FIG.5 RELATIVE RADIANT INTENSITY
VS. FORWARD CURRENT

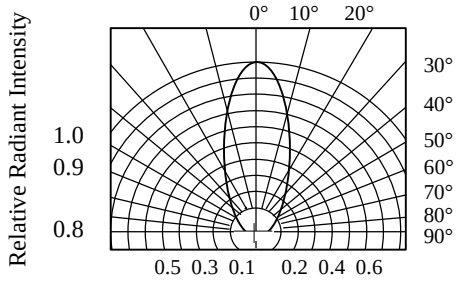


FIG.6 RADIANTION DIAGRAM