

GaAlAs T-1 PACKAGE INFRARED EMITTING DIODE

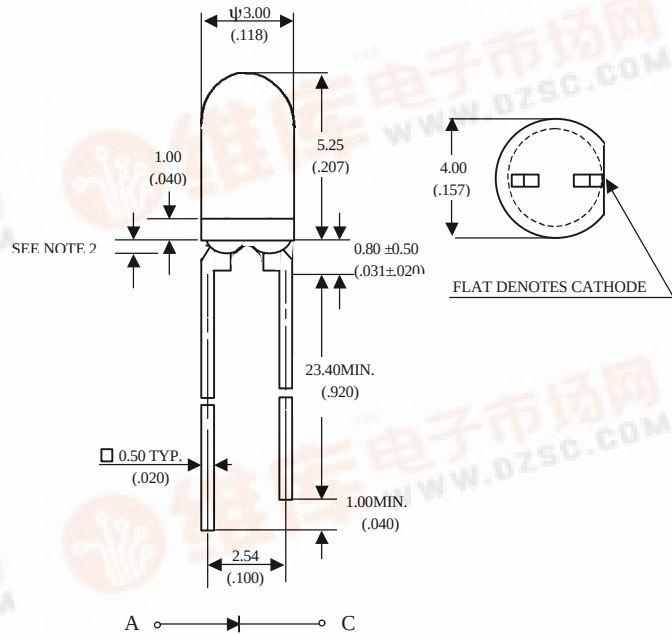
MIE-334L3

Description

The MIE-334L3 is an infrared emitting diode in GaAlAs on GaAlAs technology molded in water clear plastic package.

Package Dimensions

Unit : mm (inches)



Features

- High power and high radiant intensity
- Suitable for DC and high pulse current operation
- Standard T-1 ($\phi 3\text{mm}$) package
- Peak wavelength $\lambda_p = 880\text{ nm}$
- Good spectral matching to si-photodetector

Notes :

1. Tolerance is $\pm 0.25\text{ mm}$ (.010") unless otherwise noted.
2. Protruded resin under flange is 0.8 mm (.031") max.
3. Lead spacing is measured where the leads emerge from the package.

Absolute Maximum Ratings

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

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

Optical-Electrical Characteristics

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

Parameter	Test Conditions	Symbol	Min.	Typ .	Max.	Unit
Radiant Intensity	$I_F=20\text{mA}$	I_e	-	2.2	-	mW/sr
Forward Voltage	$I_F=50\text{mA}$	V_F	-	1.40	1.7	V
Reverse Current	$V_R=5\text{V}$	I_R	-	-	100	μA
Peak Wavelength	$I_F=20\text{mA}$	λ_p	-	880	-	nm
Spectral Bandwidth	$I_F=20\text{mA}$	$\Delta\lambda$	-	80	-	nm
View Angle	$I_F=20\text{mA}$	$2\theta_{1/2}$	-	30	-	deg .

Typical Optical-Electrical Characteristic Curves

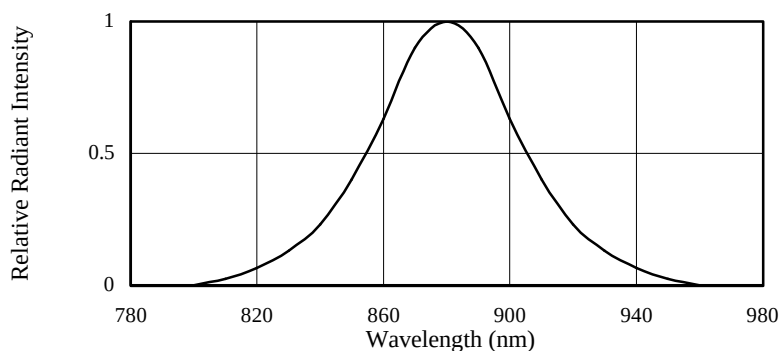


FIG.1 SPECTRAL DISTRIBUTION

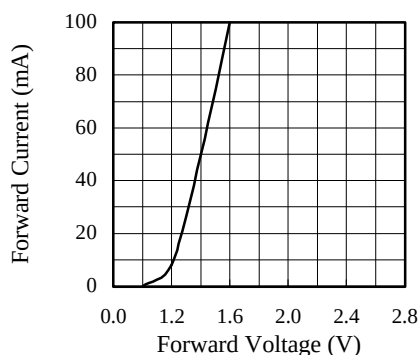


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE

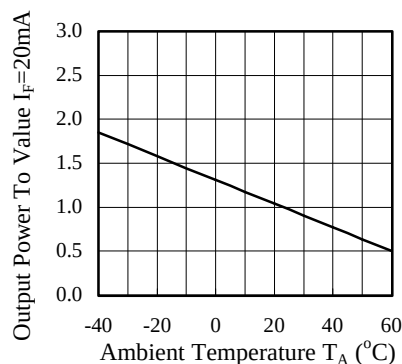


FIG.3 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

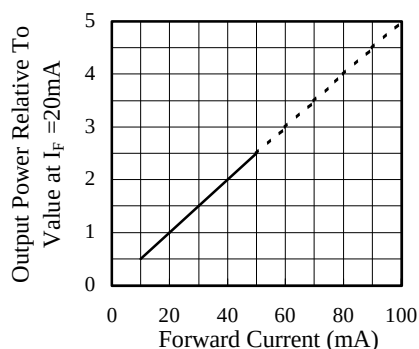


FIG.4 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

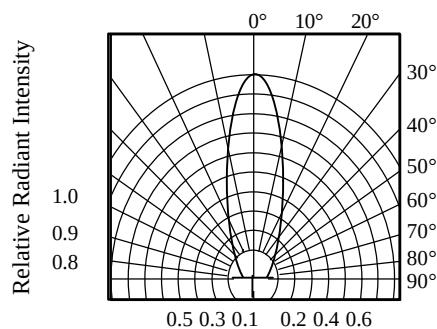


FIG.5 RADIATION DIAGRAM