

62038 GaAs LIGHT EMITTING DIODE, TO-46 PACKAGE



08/18/03

Features:

- Hermetically sealed
- High output, 940nm
- Small package

Applications:

- End-of-tape indicators
- Reflective sensors
- Card readers
- Level sensors

DESCRIPTION

The **62038** is a P-N GaAs Infrared Light Emitting Diode in a flat lens TO-46 package. The output is spectrally matched to silicon phototransistors or photodarlington. Available binned to customer specifications and/or screened to MIL-PRF-19500.

ABSOLUTE MAXIMUM RATINGS 25°C FREE AIR TEMPERATURE UNLESS NOTED

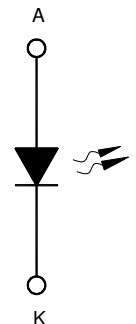
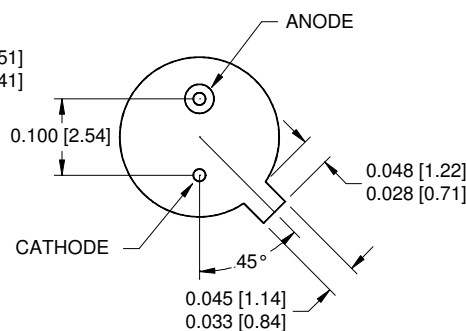
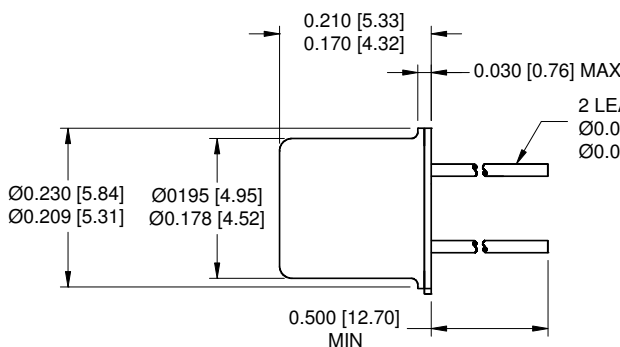
Reverse Voltage(at 25°C case temperature)	2 Vdc
Forward Current-Continuous..(Note 1)	200 mA
Power Dissipation (Note 2).....	250 mW
Storage Temperature	-65°C to +150°C
Operating Temperature.....	-55°C to +125°C
Soldering Temperature (10 seconds, 1/16 inch from case).....	240°C

NOTES:

1. Derate linearly to 125°C case temperature at the rate of 2.0 mA/°C.
2. Derate linearly to 125°C case temperature at the rate of 2.5 mW/°C.

Package Dimensions

Schematic Diagram



ALL DIMENSIONS ARE IN INCHES [MILLIMETERS]

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ELECTRICAL CHARACTERISTICS

T_A = 25°C unless otherwise specified.

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS	NOTE
Output Power	P _O	3.3	5		mW	I _F = 100mA	
Forward Voltage	V _F			1.75	V	I _F = 100mA	
Reverse Breakdown Voltage	B _{VR}	2			V	I _R = 10μA	
Radiation Rise Time	t _R		0.7		μs	I _F = 50mA	
Peak Wavelength	λ _P		940		nm	I _F = 100mA	
Beam Angle	θ		50		degrees		1
Forward Max Continuous Current	I _{F(MAX)}			200	mA	25°C Case	2

NOTES:

1. Angle between half-intensity points.
2. Derate linearly above 25°C at 2.0 mA/°C.

RECOMMENDED OPERATING CONDITIONS:

PARAMETER	SYMBOL	MIN	MAX	UNITS
Forward Current	I _F	50	200	mA

SELECTION GUIDE

PART NUMBER	PART DESCRIPTION	P _O Range Min
62038-001	Commercial	3.3 mW
62038-101	Screened	3.3 mW