

# 62074 FIBER OPTIC GaAlAs LIGHT EMITTING DIODE



### Features:

- Hermetically Sealed
- High Radiant Output for Fiber Optic Applications
- High Speed
- Spectrally Matched to the 61082 Series PIN Diode

### Applications:

- Computer Peripheral Link
- Tempest Applications
- Mobile Communications
- Local Area Networks

### DESCRIPTION

The **62074** Light Emitting Diodes are designed to interface with multimode fibers from 50/125 to 200/300 microns. These LED's convert electrical current into optical power that can be used in fiber optic communication. This series provides high irradiance and is mounted on a TO-46 header with metal protective cap. Available binned to customer specifications and/or screened to MIL-PRF-19500.

### ABSOLUTE MAXIMUM RATINGS 25°C FREE AIR TEMPERATURE UNLESS NOTED

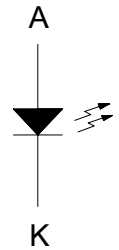
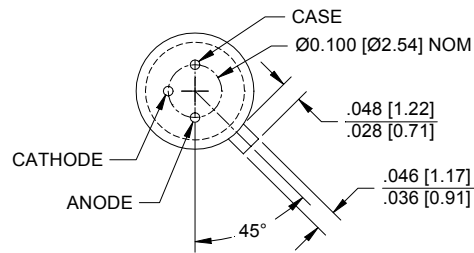
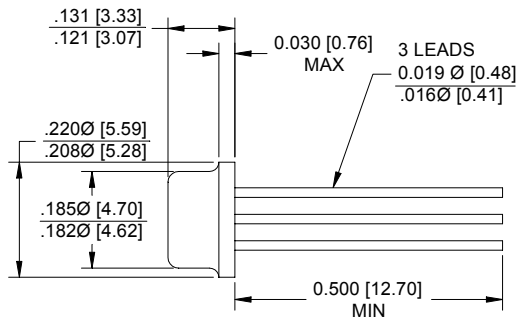
Storage Temperature.....	-55°C to +150°C
Operating Temperature .....	-40°C to +125°C
Reverse Voltage( at 25°C case temperature) .....	1Vdc
Forward Current-Continuous.....(See note 1).....	100mA
Soldering Temperature (1/16 inch from case for 10 seconds).....(See note 2) .....	240°C
Transmission Rate at 100mA I <sub>F</sub> .....	10Mbits/s

### NOTES:

1. Derate linearly to 125°C free-air temperature at the rate of 1.0 mA/°C.
2. RMA flux is recommended.

### Package Dimensions

### Schematic Diagram



ALL DIMENSIONS ARE IN INCHES [MILLIMETERS]

**ELECTRICAL CHARACTERISTICS**T<sub>A</sub> = 25°C unless otherwise specified.

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS	NOTE	
Output Power	62074-X01 62074-X02	P <sub>O</sub>	2.5	7.5		mW	I <sub>F</sub> = 100mA	
Coupled Power Out	62074-XX1 62074-X02	P <sub>OC</sub>	150 50			μW	I <sub>F</sub> = 100mA	1
Forward Voltage	62074-XXX	V <sub>F</sub>			2.0	V	I <sub>F</sub> = 100mA	
Reverse Breakdown Voltage	62074-XXX	B <sub>VR</sub>	1			V	I <sub>R</sub> = 10μA	
Reverse Current	62074-XXX	I <sub>R</sub>		6	10	μA	V <sub>R</sub> = 1.0V	
Radiation Rise/Fall Time	62074-XXX	t <sub>R</sub>			10	ns	I <sub>F</sub> = 100mA Prebias @ 5 mA	
Peak Wavelength	62074-XXX	λ <sub>P</sub>	830		870	nm	I <sub>F</sub> = 50mA	

**NOTES:**

1. Tested using a 100/140μm fiber with a 0.29nA. Actual coupled power may vary due to alignment procedures and/or receptable and fiber tolerances.

**RECOMMENDED OPERATING CONDITIONS:**

PARAMETER	SYMBOL	MIN	MAX	UNITS
Forward Current	I <sub>F</sub>	75	100	mA
Transmission Rate		10		Mbits/S

**SELECTION GUIDE**

PART NUMBER	PART DESCRIPTION	P <sub>O</sub> Range
62074-001	GaAIAs Fiber Optic LED in TO-46 package, commercial version	2.0-5.0
62074-101	GaAIAs Fiber Optic LED in TO-46 package (-55° to +125°C) with 100% screening	2.0-5.0
62074-002	GaAIAs Fiber Optic LED in TO-46 package, commercial version	2.5-5.0
62074-102	GaAIAs Fiber Optic LED in TO-46 package (-55° to +125°C) with 100% screening	2.5-5.0