

62074 FIBER OPTIC GaAlAs LIGHT EMITTING DIODE

Mii

**OPTOELECTRONIC PRODUCTS
DIVISION**

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

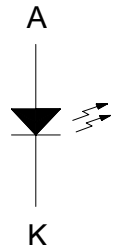
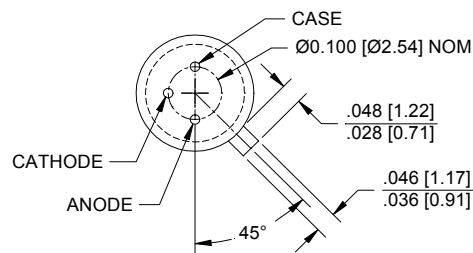
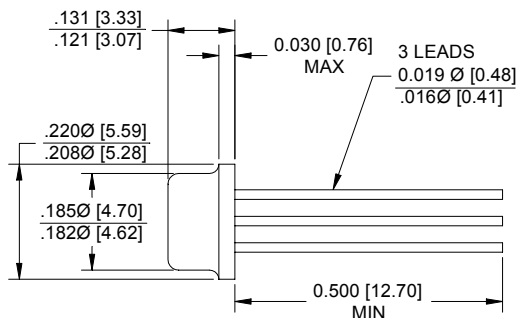
Storage Temperature.....	-55°C to +150°C
Operating Temperature.....	-40°C to +125°C
Reverse Voltage(at 25°C case temperature)	1Vdc
Forward Current-Continuous.....(See note 1).....	100mA
Soldering Temperature (1/16 inch from case for 10 seconds).....(See note 2)	240°C
Transmission Rate at 100mA I _F	10Mbits/s

NOTES:

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

Package Dimensions

Schematic Diagram



ALL DIMENSIONS ARE IN INCHES [MILLIMETERS]

ELECTRICAL CHARACTERISTICS $T_A = 25^\circ\text{C}$ unless otherwise specified.

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS	NOTE
Output Power 62074-X01 62074-X02	P_O	2.5	7.5		mW	$I_F = 100\text{mA}$	
Coupled Power Out 62074-XX1 62074-X02	P_{OC}	150 50			μW	$I_F = 100\text{mA}$	1
Forward Voltage 62074-XXX	V_F			2.0	V	$I_F = 100\text{mA}$	
Reverse Breakdown Voltage 62074-XXX	B_{VR}	1			V	$I_R = 10\mu\text{A}$	
Reverse Current 62074-XXX	I_R		6	10	μA	$V_R = 1.0\text{V}$	
Radiation Rise/Fall Time 62074-XXX	t_R			10	ns	$I_F = 100\text{mA}$ Prebias @ 5 mA	
Peak Wavelength 62074-XXX	λ_P	830		870	nm	$I_F = 50\text{mA}$	

NOTES:

1. Tested using a 100/140 μm 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_F	75	100	mA
Transmission Rate		10		MBits/S

SELECTION GUIDE

PART NUMBER	PART DESCRIPTION	P_O 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