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.

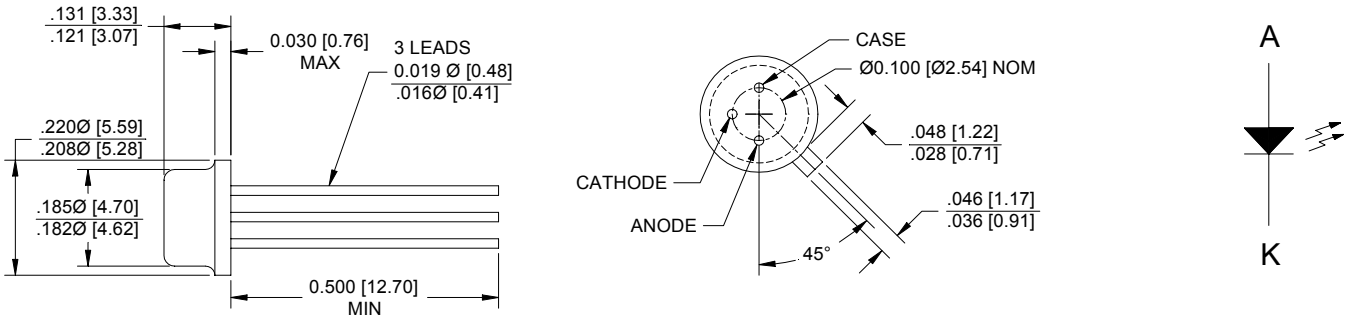
ABSOLUTE MAXIMUM RATINGS 25°C FREE AIR TEMPERATURE UNLESS NOTED

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 mA/°C.
2. RMA flux is recommended.

Package Dimensions **Schematic Diagram**



ALL DIMENSIONS ARE IN INCHES [MILLIMETERS]

ELECTRICAL CHARACTERISTICS

T_A = 25°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 = 100mA	
Coupled Power Out	62074-XX1 62074-X02	P_{OC}	150 50			µW	I_F = 100mA	1
Forward Voltage	62074-XXX	V_F			2.0	V	I_F = 100mA	
Reverse Breakdown Voltage	62074-XXX	B_{VR}	1			V	I_R = 10µA	
Reverse Current	62074-XXX	I_R		6	10	µA	V_R = 1.0V	
Radiation Rise/Fall Time	62074-XXX	t_R			10	ns	I_F = 100mA Prebias @ 5 mA	
Peak Wavelength	62074-XXX	λ_P	830		870	nm	I_F = 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_F	75	100	mA
Transmission Rate		10		MBits/S

SELECTION GUIDE

PART NUMBER	PART DESCRIPTION	P_O Range
62074-001	GaAlAs Fiber Optic LED in TO-46 package, commercial version	2.0-5.0
62074-101	GaAlAs Fiber Optic LED in TO-46 package (-55° to +125°C) with 100% screening	2.0-5.0
62074-002	GaAlAs Fiber Optic LED in TO-46 package, commercial version	2.5-5.0
62074-102	GaAlAs Fiber Optic LED in TO-46 package (-55° to +125°C) with 100% screening	2.5-5.0