

**61082**

**FIBER OPTIC PIN PHOTODIODE**

**Mii**

**OPTOELECTRONIC PRODUCTS  
DIVISION**

**Features:**

- Hermetically sealed
- Optimized for fiber optic applications using 50-200µm fiber
- Electrically isolated TO-46 package
- Spectrally matched to the 62074 series LED.

**Applications:**

- Mobile communication links
- Computer peripherals
- Computer links
- Industrial control links

**DESCRIPTION**

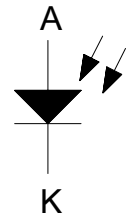
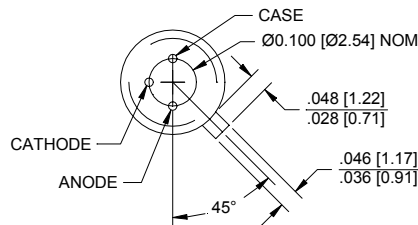
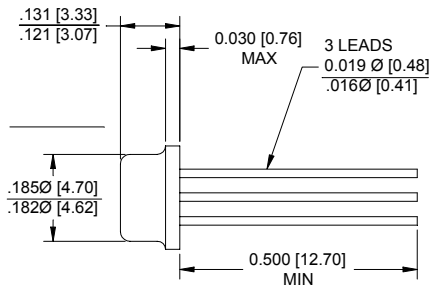
The **61082** is designed for high speed use in fiber optic receivers. The case is electrically isolated to enhance EMI/RFI shielding. The Pin Photodiodes are designed to interface with multimode optical fibers from 50-125 microns. Available custom binned to customer specifications and/or screened to MIL-PRF-19500.

**ABSOLUTE MAXIMUM RATINGS**

Storage Temperature.....	-65°C to +150°C
Operating Temperature (See part selection guide for actual operating temperature).....	-55°C to +125°C
Reverse Voltage .....	.25V
Power Dissipation (Derate at the rate of 2.0 mW/°C above 25°C) .....	200mW
Lead Soldering Temperature (1/16" (1.66mm) from case for 5 sec. with soldering iron).....	240°C

**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
Flux Responsivity	61082-XXX R	0.40	0.55		A/W	V <sub>R</sub> = 5.0V	2
Dark Current	61082-XXX I <sub>D</sub>			10	nA	V <sub>R</sub> = 5V, H = 0	
Peak Response Wavelength	61082-XXX λ <sub>p</sub>		880		nm		
Rise Time	61082-XXX t <sub>r</sub>		10		nS	V <sub>R</sub> = 15V	1
Total Capacitance	61082-XXX C <sub>T</sub>		6		pF	V <sub>R</sub> = 20V	
Field of View	61082-XXX FOV		80		degrees		

**NOTES:**

- R<sub>L</sub> = 50Ω, 10%-90%.
- Test @ V<sub>R</sub> = 5V with 50/125 micron, 0.20 N.A. fiber, @ 10μW optical power @ 850nm. Responsivity levels apply to 50μm, 62.5μm and 100μm core optical fibers.

**RECOMMENDED OPERATING CONDITIONS:**

PARAMETER	SYMBOL	MIN	MAX	UNITS
Reverse Voltage	V <sub>R</sub>	5	10	V
Irradiance (H)	H	15	25	mW/cm <sup>2</sup>

**SELECTION GUIDE**

PART NUMBER	PART DESCRIPTION	I <sub>L</sub> Range
61082-001	Photodiode in coax package, domed lens, commercial version	+5μA
61082-101	Photodiode in coax package, domed lens (-55° to +100°C) with 100% screening	+5μA