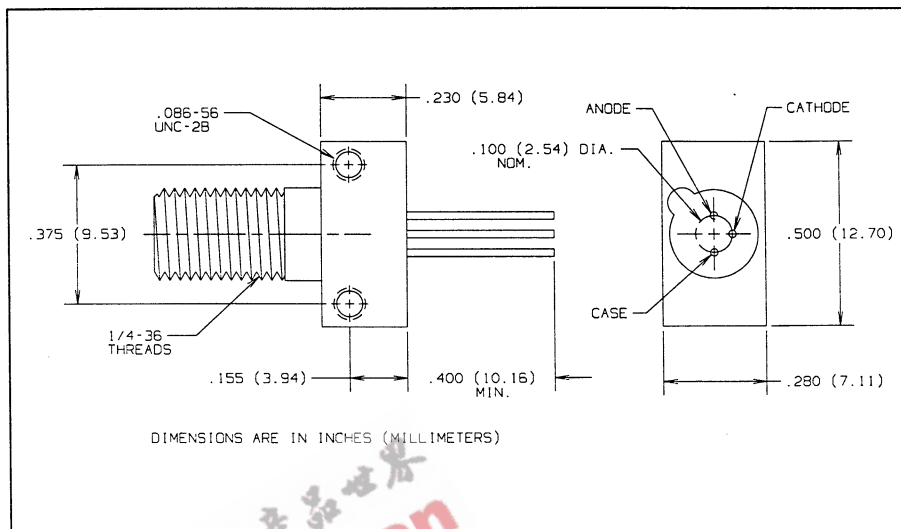
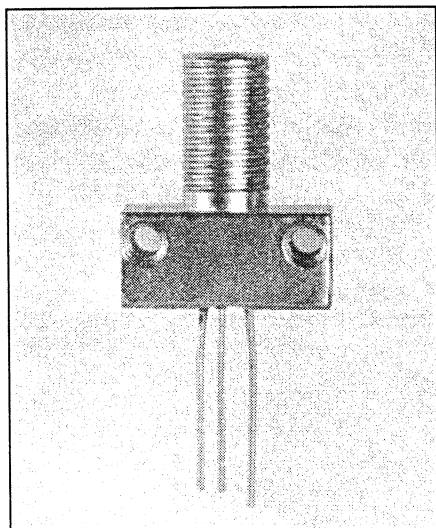


Fiber Optic PIN Photodiode in SMA Receptacle Type OPF471



Features

- Component pre-mounted and ready to use
- Pre-tested with fiber to assure performance
- Popular SMA style receptacle

Description

The OPF471 consists of a low cost plastic cap PIN photodiode pre-mounted and aligned in an SMA receptacle. This configuration is designed for PC board or panel mounting. Includes lock washer and jam nut, two 2-56 screws, and dust cap.

The PIN Photodiodes are designed to interface with multimode optical fibers from 50/125 to 200/300 microns.

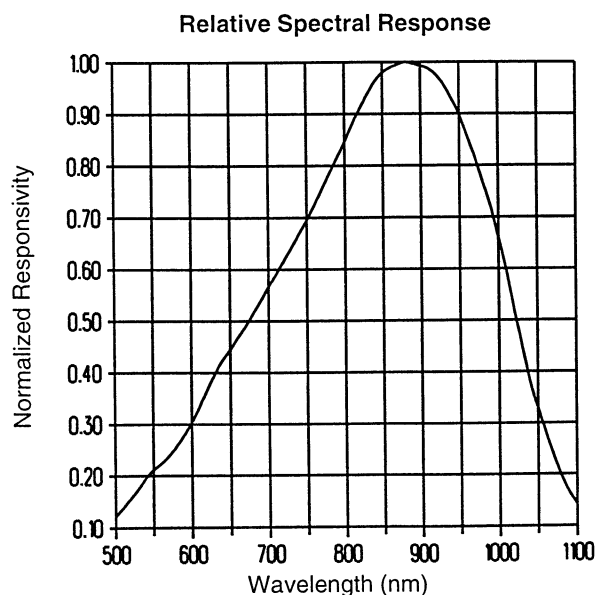
Absolute Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

| | |
|------------------------------------------------------------------------------------------|---------------------------------------------|
| Reverse Voltage | 100 VDC |
| Continuous Power Dissipation | 200 mW ⁽¹⁾ |
| Storage Temperature Range | -55°C to $+100^\circ\text{C}$ |
| Operating Temperature Range | -40°C to $+85^\circ\text{C}$ |
| Lead Soldering Temperature [1/16 inch (1.6 mm) from case for 5 sec. with soldering iron] | 240°C ⁽²⁾ |

Notes:

- (1) Derate linearly @ 2.0 mW/ $^\circ\text{C}$ above 25°C .
- (2) RMA flux is recommended. Duration can be extended to 10 sec. max when flow soldering.
- (3) Test @ $V_R = 5\text{ V}$ with 50/125 micron, 0.20 N.A. fiber, @ $10\ \mu\text{W}$ optical power @ 850 nm. Responsivity levels apply to 50 μm , 62.5 μm and 100 μm core optical fibers.
- (4) $R_L = 50\ \Omega$. 10% -90%.

Typical Performance Curves



Type OPF471

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

| SYMBOL | PARAMETER | MIN | TYP | MAX | UNITS | TEST CONDITIONS |
|-------------|--------------------------|------|------|-----|-------|----------------------------|
| R | Flux Responsivity | 0.45 | 0.55 | | A/W | $V_R = 5.0\text{ V}^{(3)}$ |
| I_D | Dark Current | | 0.1 | 5.0 | nA | $V_R = 5.0\text{ V}$ |
| λ_p | Peak Response Wavelength | | 880 | | nm | |
| t_r | Output Rise Time | | 6.0 | | ns | $V_R = 15\text{ V}^{(4)}$ |
| C_T | Total Capacitance | | 3.0 | | pF | $V_R = 20\text{ V}$ |

TYPICAL PERFORMANCE CURVES

