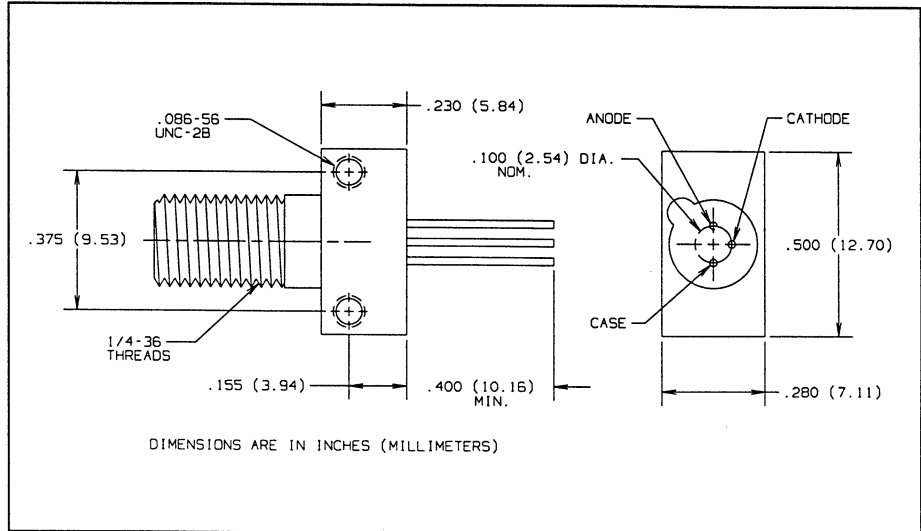
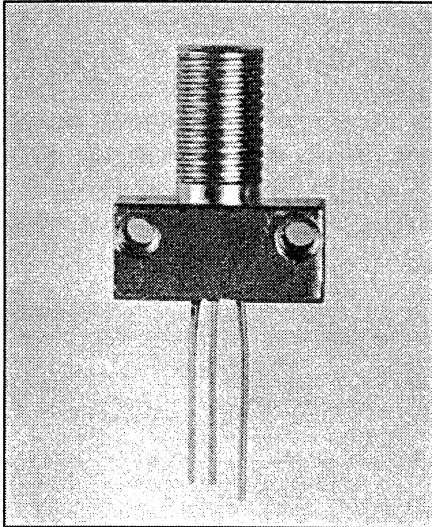


# Fiber Optic High Speed PIN Photodiode in SMA Receptacle Type OPF431



## Features

- Component pre-mounted and ready to use
- High speed, low capacitance
- Pre-tested with fiber to assure performance
- Popular SMA style receptacle
- Electrically isolated from case

## Description

The OPF431 consists of a hermetic 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 100/140 microns.

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

Reverse Voltage	100 V
Continuous Power Dissipation	200 mW <sup>(1)</sup>
Storage Temperature Range	-55° C to +125° C
Operating Temperature Range	-40° C to +100° C
Lead Soldering Temperature [1/16 inch (1.6 mm) from case for 5 sec. with soldering iron]	240° C <sup>(2)</sup>

### Notes:

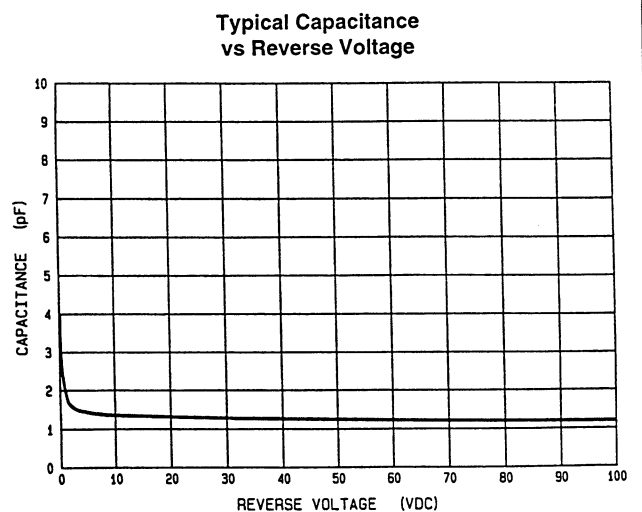
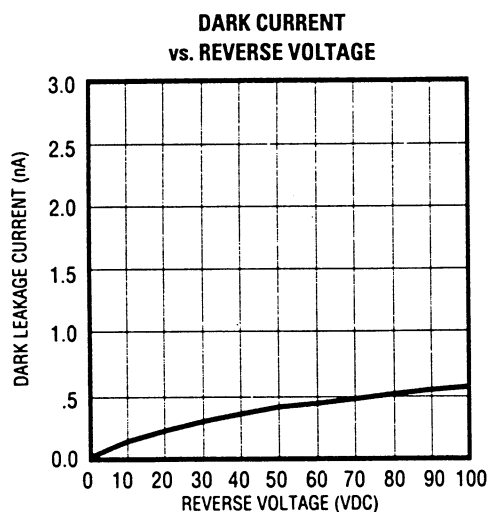
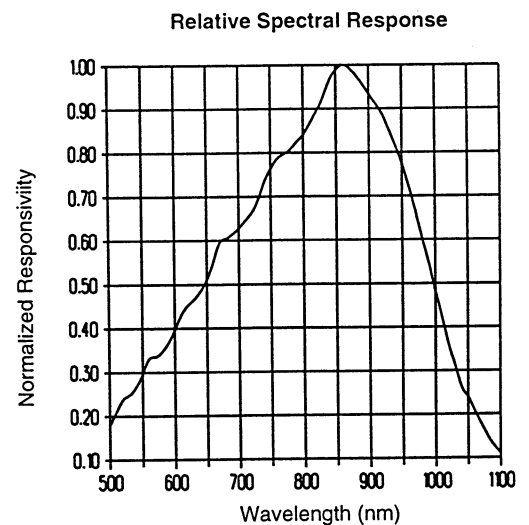
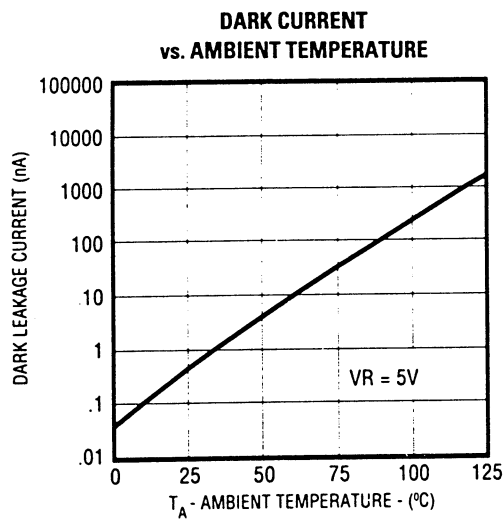
- (1) Derate linearly @ 2.0 mW/° C above 25° C.
- (2) RMA flux is recommended. Duration can be extended to 10 sec. max when flow soldering.
- (3) Test @  $V_R = 5 \text{ V}$  with 50/125 micron, 0.20 N.A. fiber, @ 10  $\mu\text{W}$  optical power @ 850 nm. Responsivity levels apply to 50  $\mu\text{m}$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

# Type OPF431

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	$V_R = 5.0\text{ V}$
$\lambda_p$	Peak Response Wavelength		860		nm	
$t_r$	Output Rise Time		0.6		ns	$V_R = 50\text{ V}, R_L = 50\Omega, 10\%-90\%$
$t_r$	Output Rise Time		1.0		ns	$V_R = 15\text{ V}, R_L = 50\Omega, 10\%-90\%$
$t_r$	Output Rise Time		2.0		ns	$V_R = 5.0\text{ V}, R_L = 50\Omega, 10\%-90\%$
$C_T$	Total Capacitance		1.5	2.0	pF	$V_R = 5.0\text{ V}$

## Typical Performance Curves



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