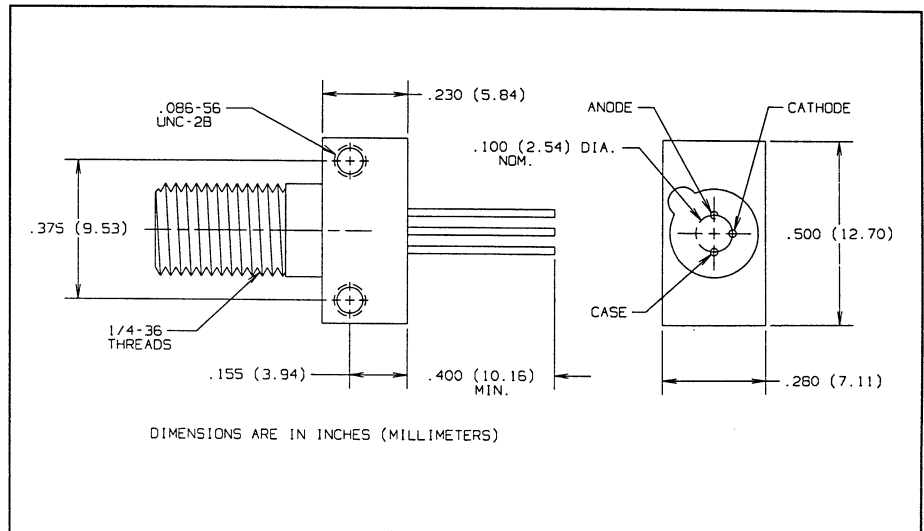
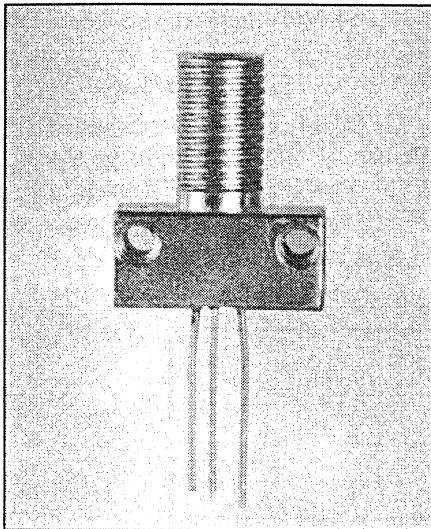


# Fiber Optic PIN Photodiode in SMA Receptacle Type OPF421



## Features

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

## Description

The OPF421 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 200/300 microns.

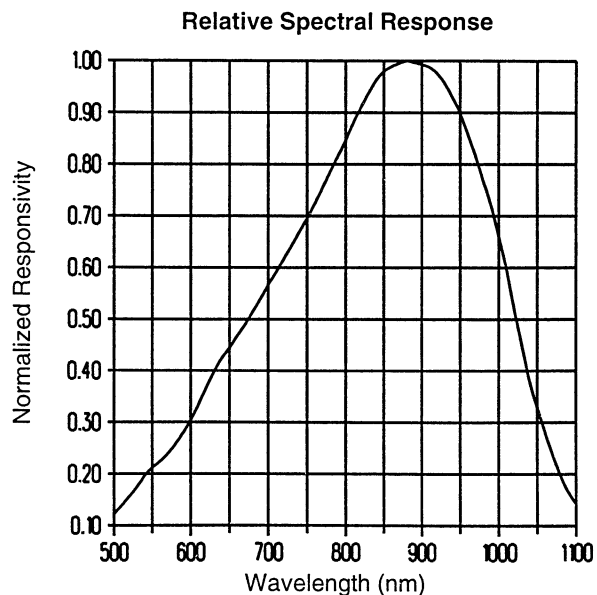
## Absolute Maximum Ratings ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

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

### Notes:

- (1) Derate linearly @  $2.0\text{ mW}/^\circ\text{C}$  above  $25^\circ\text{C}$ .
- (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.
- (4)  $R_L = 50\ \Omega$ , 10%-90%.

## Typical Performance Curves

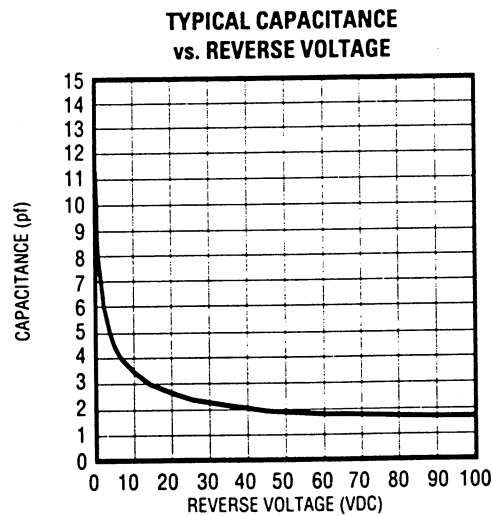
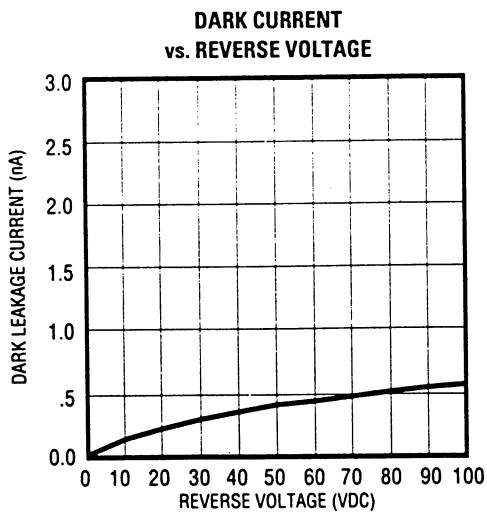
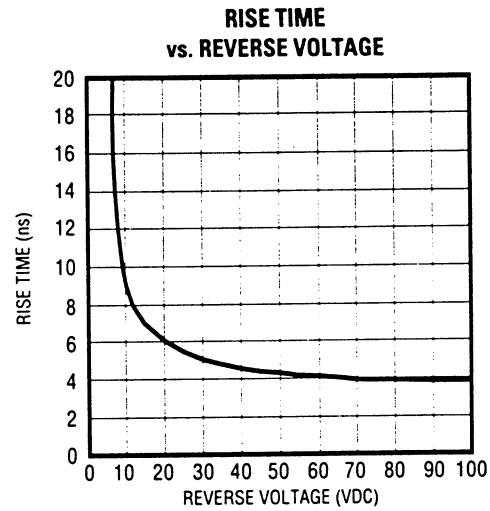
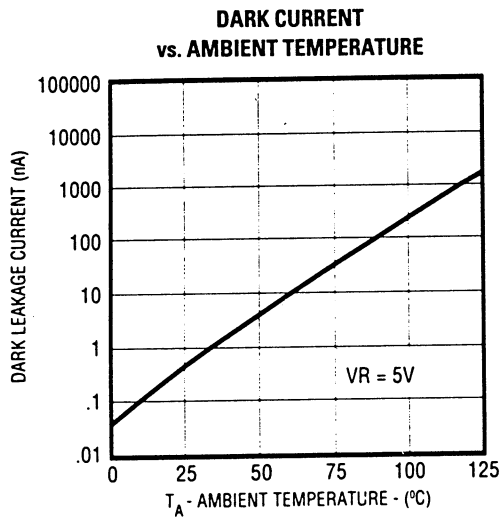


# Type OPF421

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		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



FIBER OPTIC  
COMPONENTS

Optek reserves the right to make changes at any time in order to improve design and to supply the best product possible.

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