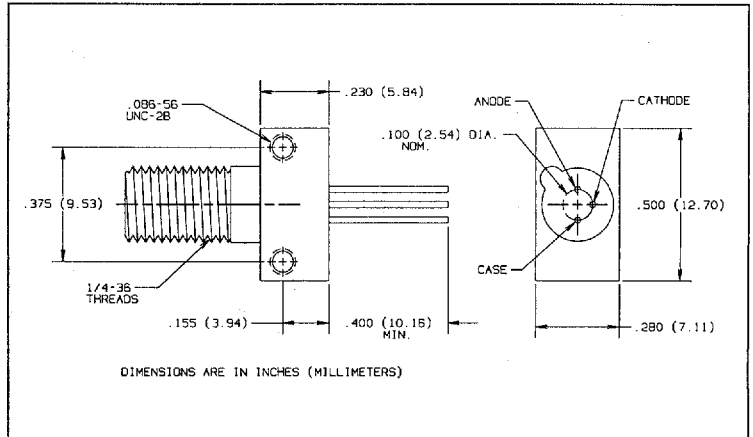
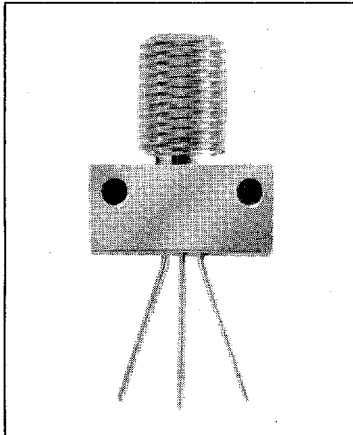


# High Reliability Fiber Optic High Speed PIN Photodiode in SMA Receptacle Type OMF421TX, OMF421TXV



## Features

- Component pre-mounted and ready to use
- Pre-tested with fiber to assure performance
- Popular style receptacle
- Processing patterned after JANTX and JANTXV of MIL-S-19500

## Description

The OMF421 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 200/230 microns.

The TX and TXV suffix indicates that the device is processed to Optek's screening and conformance test plan patterned after MIL-S-19500.

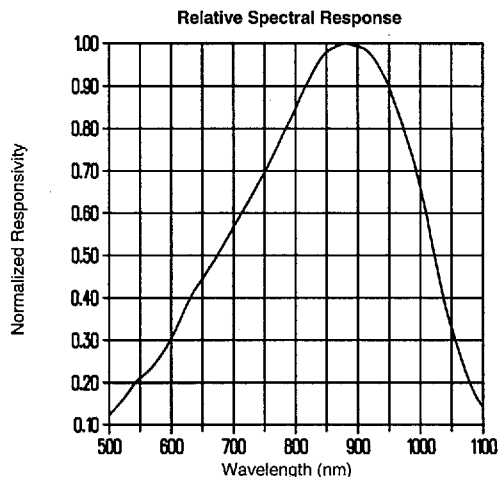
## Absolute Maximum Ratings ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

Reverse Voltage	100VDC
Continuous Power Dissipation	200mW <sup>(1)</sup>
Storage Temperature Range	-55°C to +150°C
Operating Temperature Range	-40°C to +125°C
Lead Soldering Temperature [1/16 inch (1.6mm) from case for 5 sec. with soldering iron]	240°C <sup>(2)</sup>

### Notes:

- (1) Derate linearly @ 2.0mW/°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.
- (4)  $R_L = 50 \Omega$  10%-90%.

## Typical Performance Curves

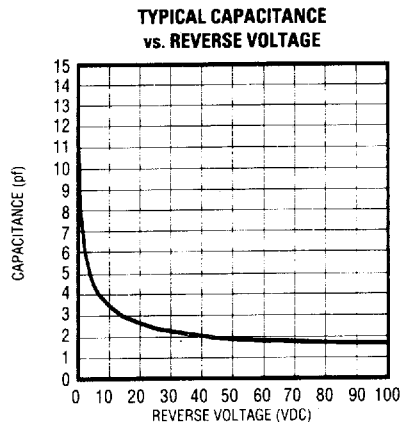
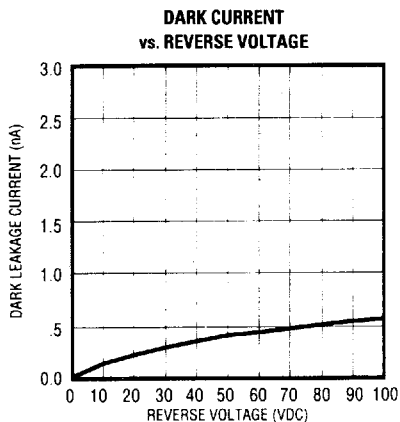
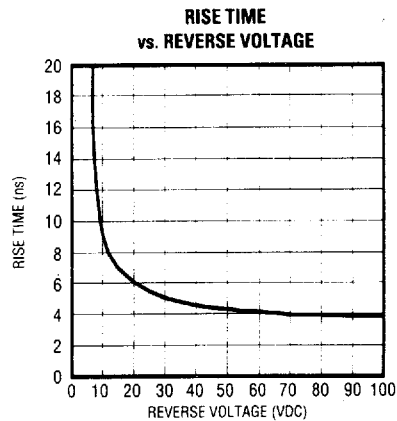
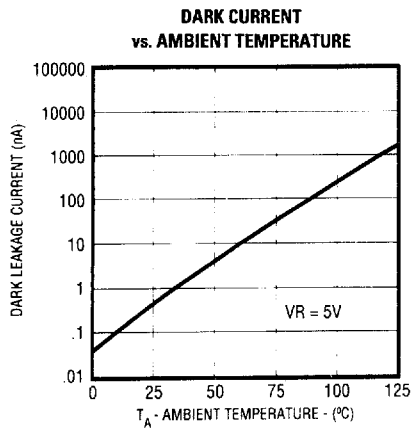


# Type OMF421TX, OMF421TXV

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	$V_R = 15.0\text{ V}^{(4)}$
$C_T$	Total Capacitance		3.0		pF	$V_R = 20.0\text{ V}$

## Typical Performance Curves



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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