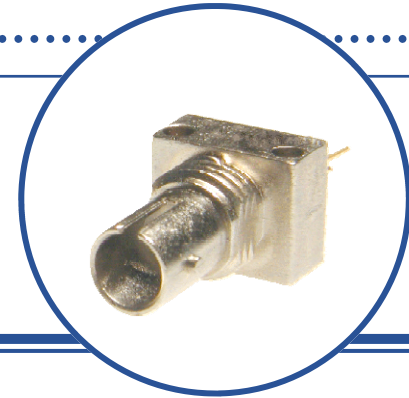


# Fiber Optic Detector

OPF482

## OPF482

- High speed, low capacitance
- Popular ST<sup>®</sup> style receptacle
- Pre-tested with fiber to assure performance
- Component pre-mounted and ready to use
- 100MHz operation minimum



The OPF482 is a low noise silicon PIN photodiode mounted in a low cost package for fiber optic applications. It offers fast response at moderate bias and is compatible with LED and laser diode sources in the 800-1000 nm wavelength region. Low capacitance improves signal to noise performance in typical short haul LAN applications.

The OPF482 is designed to be compatible with multimode optical fibers from 50/125 to 200/300 microns.

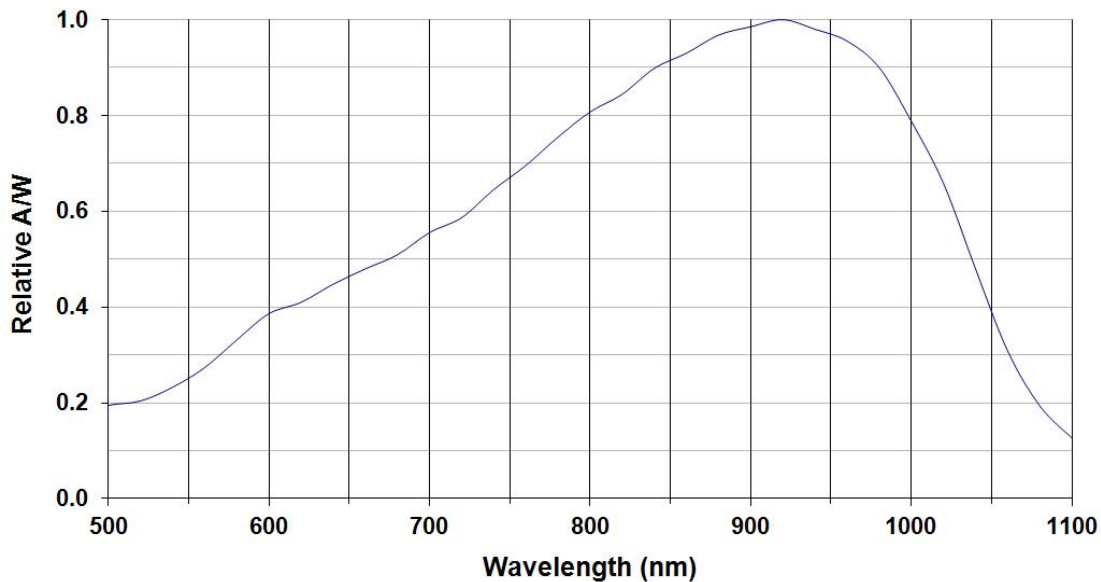
## Applications

- ◆ Industrial Ethernet equipment
- ◆ Copper-to-fiber media conversion
- ◆ Intra-system fiber optic links
- ◆ Video surveillance systems



RoHS

## Typical Responsivity



ST<sup>®</sup> is a registered trademark of AT&T.

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

### Absolute Maximum Ratings

$T_A = 25^\circ\text{C}$  unless otherwise noted

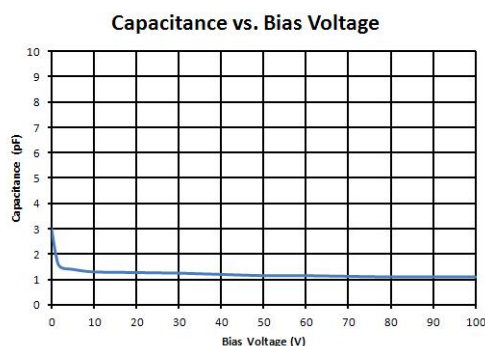
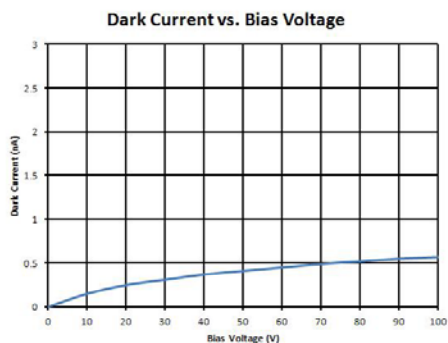
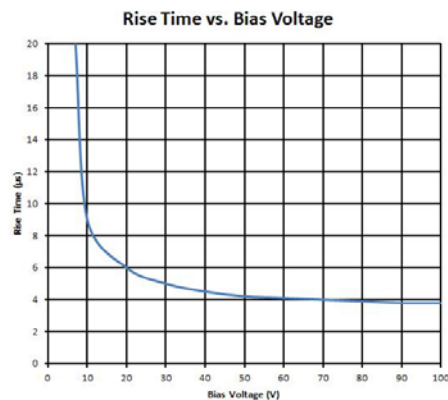
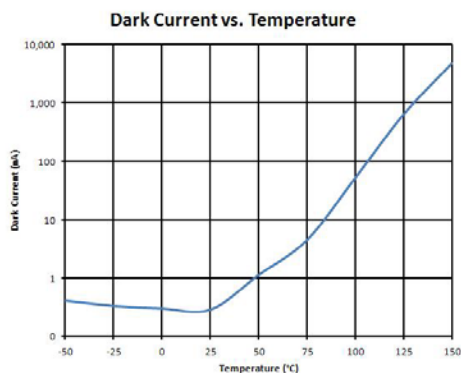
Storage Temperature Range	-55° C to +100° C
Operating Temperature Range	-40° C to +85° C
Lead Soldering Temperature <sup>(1)</sup>	260° C
Continuous Power Dissipation <sup>(2)</sup>	200 mW
Maximum Reverse Voltage	100 VDC

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

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
R	Responsivity	0.45	0.55		A/W	$V_R = 5.0\text{V}$ ; 50/125 $\mu\text{m}$ fiber; $\lambda = 850\text{nm}$
$I_D$	Dark Current		0.1	5.0	nA	$V_R = 5.0\text{V}$
$\lambda_p$	Peak Response Wavelength		905		nm	
$t_r$	Output Rise Time		2.0		ns	$V_R = 5\text{V}$ ; $R_L = 50\Omega$ , 10%-90%
$C_T$	Total Capacitance		1.5	2.0	pF	$V_R = 5\text{V}$

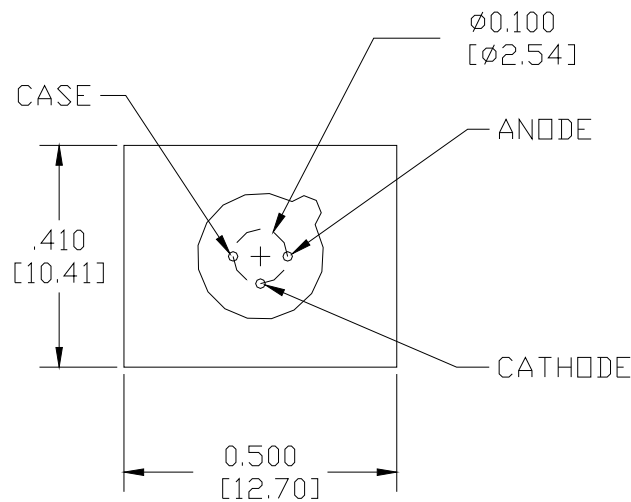
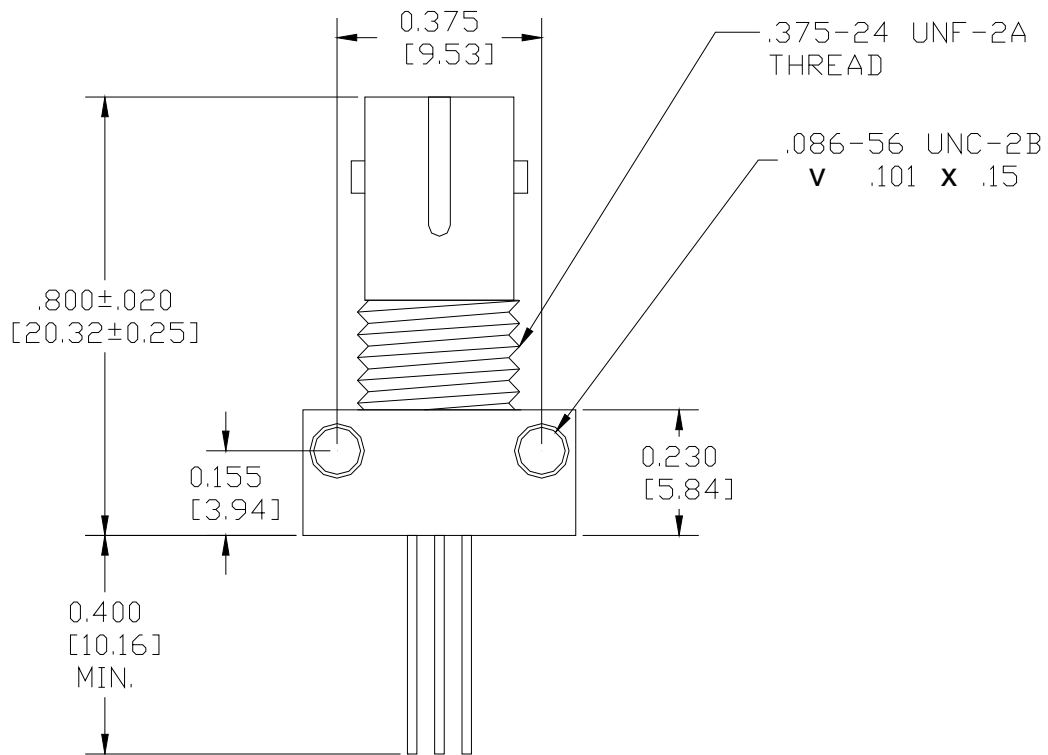
#### Notes:

- Maximum of 5 seconds with soldering iron. Duration can be extended to 10 seconds when flow soldering. RMA flux is recommended.
- De-rate linearly at 2.67mW/°C above 25°C .



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

Mechanical Data



DIMENSIONS ARE IN INCHES (MILLIMETERS)

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