

# Fiber Optic Detector

## OPF79X Series



### OPF79X Series

- 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 OPF79X 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.

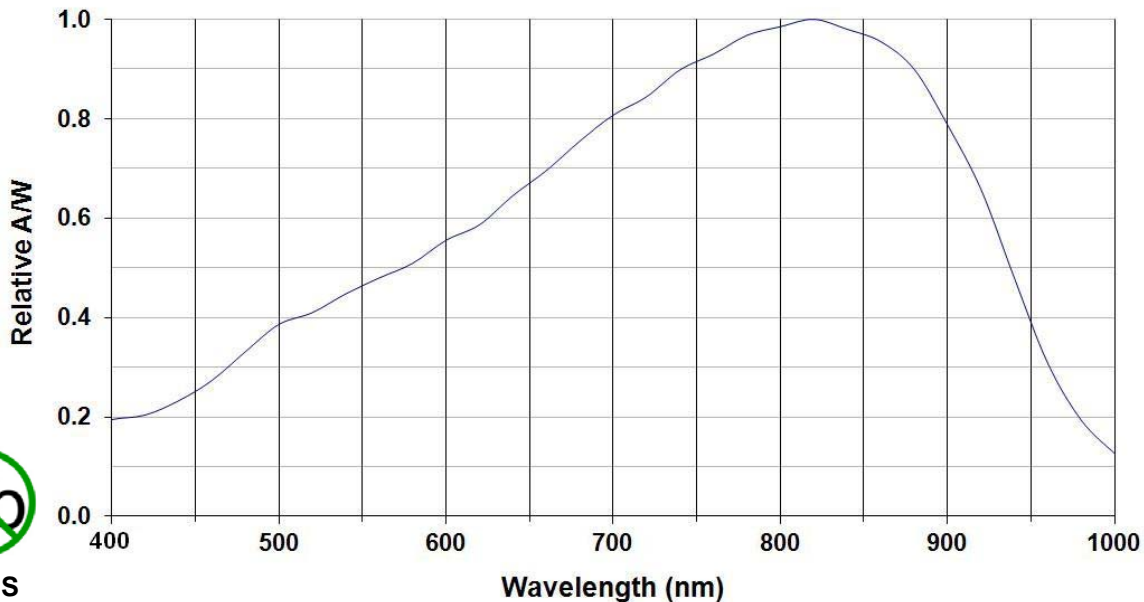
The OPF79x series is designed to be compatible with multimode optical fibers from 50/125 to 200/300 microns.

### Applications

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

Package Material		
Part Number	Body Material	Body Style
OPF792	Conductive Plastic	ST <sup>®</sup>
OPF793	Zinc, Die Cast	ST-LP <sup>®</sup>
OPF794	Zinc, Die Cast	ST-LP <sup>®</sup>

### Typical Responsivity



RoHS

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

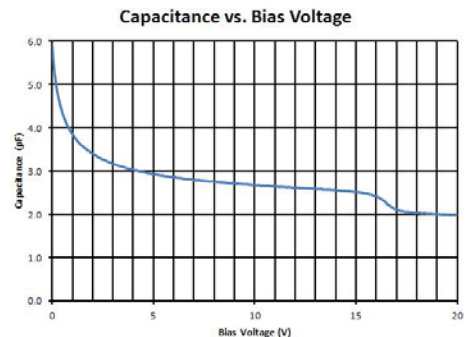
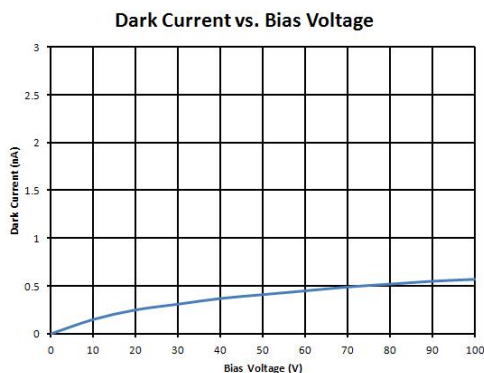
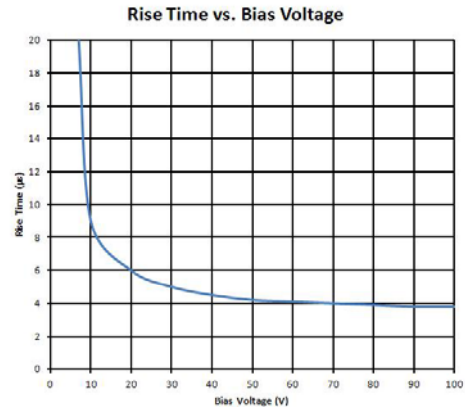
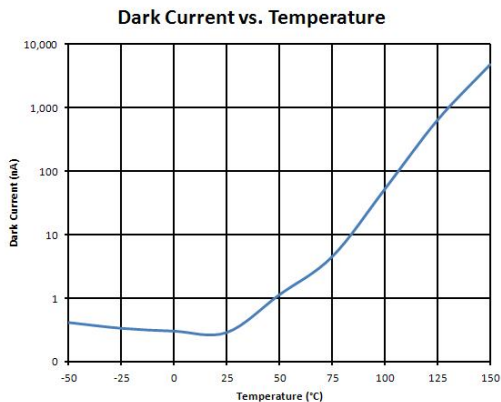
Storage Temperature Range	-55° C to +100° C
Operating Temperature Range	-40° C to +85° C
Lead Soldering Temperature <sup>(1)</sup>	260° C
Maximum Reverse Voltage	50 VDC

### 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		0.5	5.0	nA	$V_R = 5.0\text{V}$
$\lambda_p$	Peak Response Wavelength		800		nm	
$t_r$	Output Rise Time		2.0		ns	$V_R = 5.0\text{V}$ ; $R_L = 50\Omega$ , 10%-90%
BW	Bandwidth		175		MHz	$V_R = 5.0\text{V}$

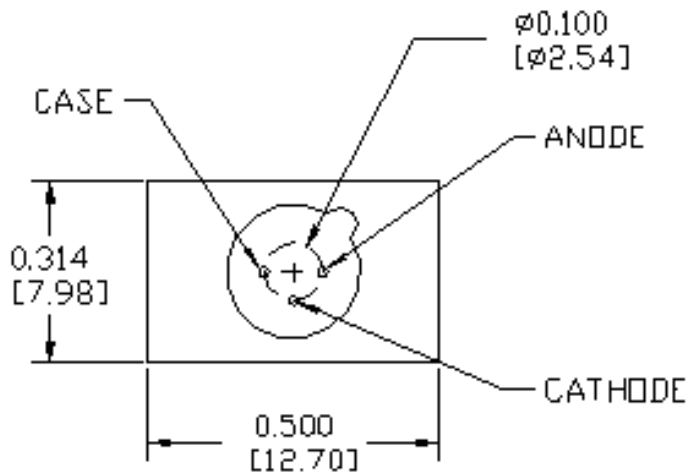
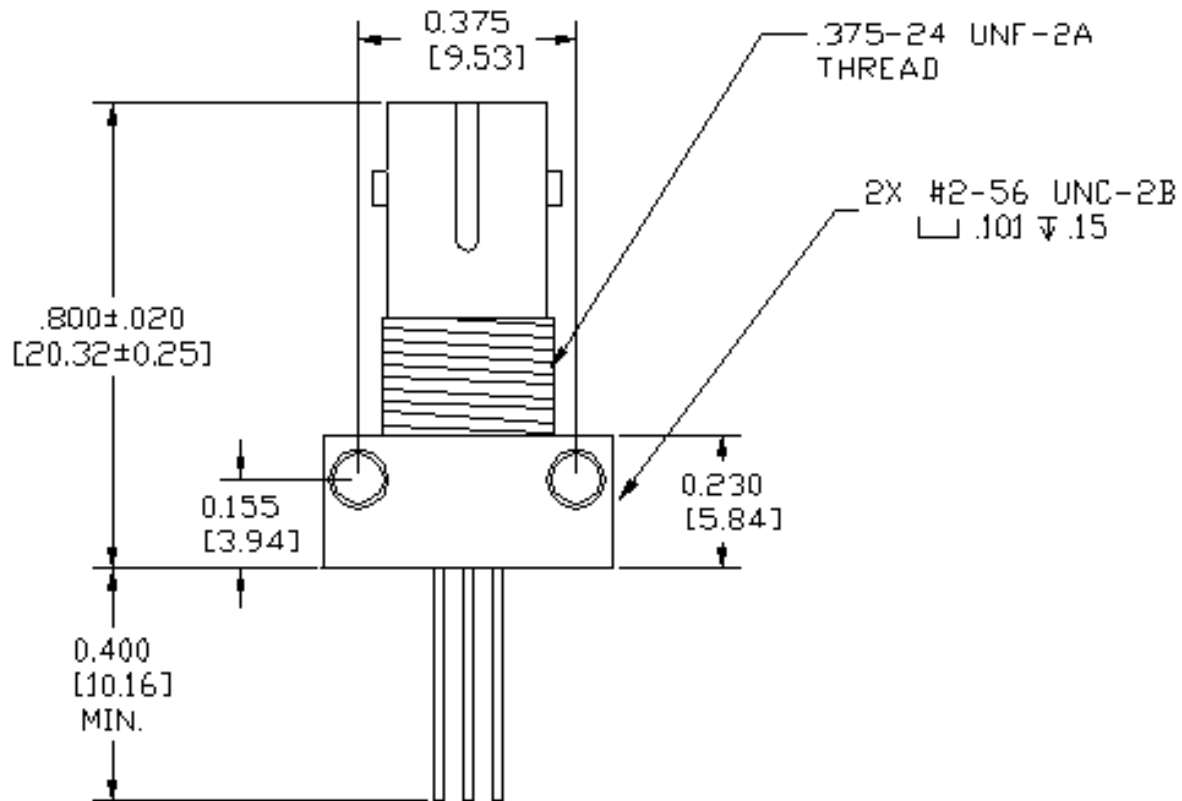
#### Notes:

- Maximum of 5 seconds with soldering iron. Duration can be extended to 10 seconds when flow soldering. RMA flux is recommended.



⤷ in order to improve design and to supply the best product possible.

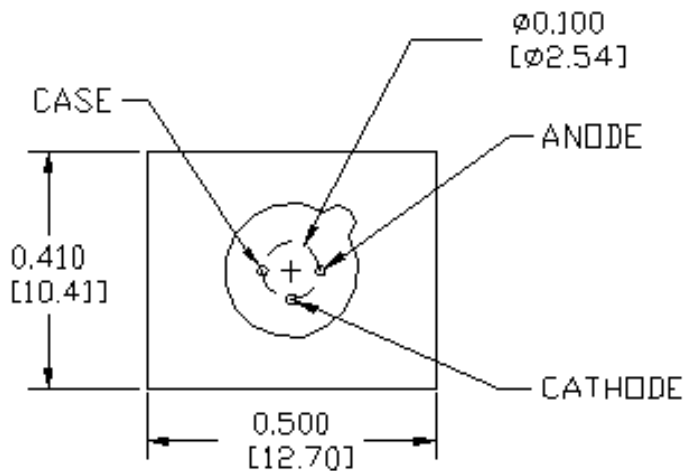
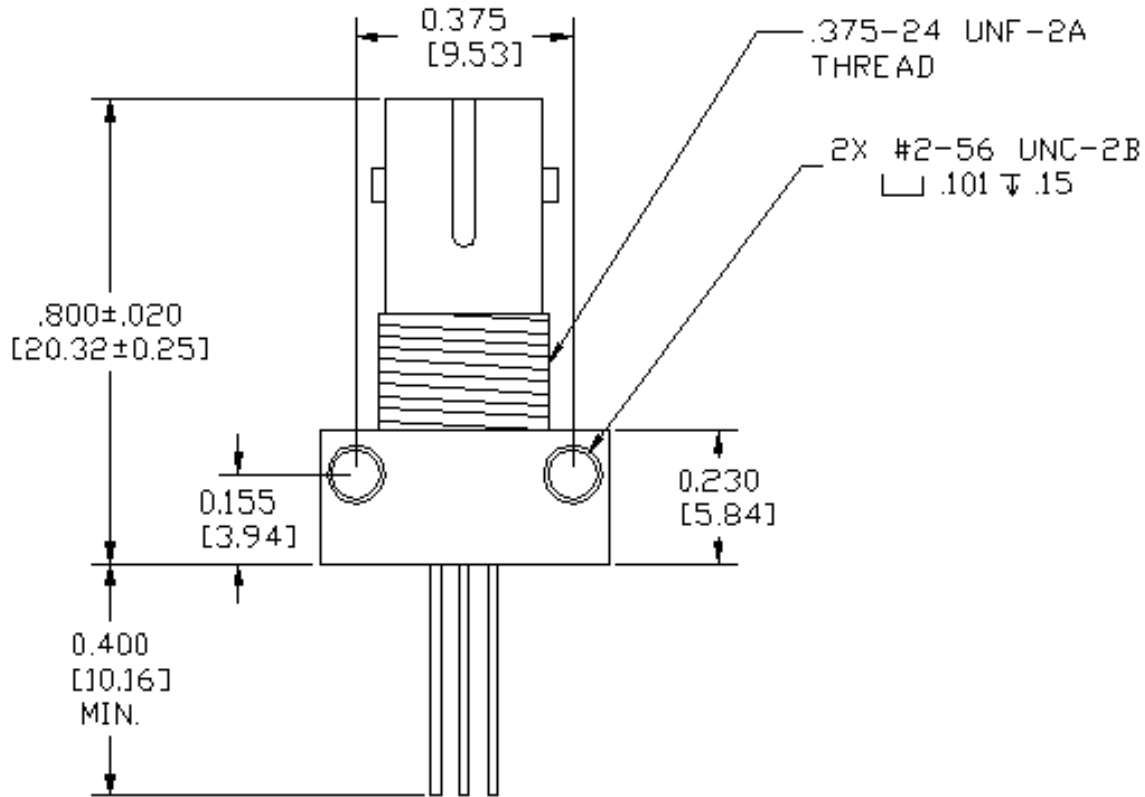
Mechanical Data - OPF792/OPF793



DIMENSIONS ARE IN INCHES (MILLIMETERS)

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Mechanical Data - OPF794



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