

Fiber Optic Detector

OPF79X Series



Features:

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



Description:

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 Obsolete per EOL1040 (Replacement OPF794)	Conductive Plastic	ST [®]
OPF794	Zinc, Die Cast	ST-LP [®]

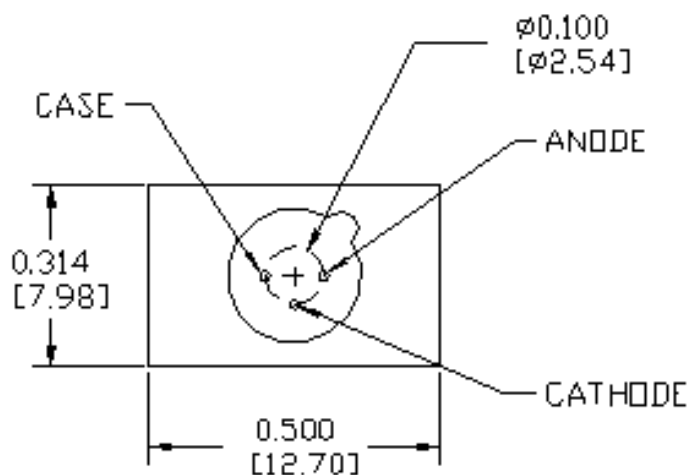
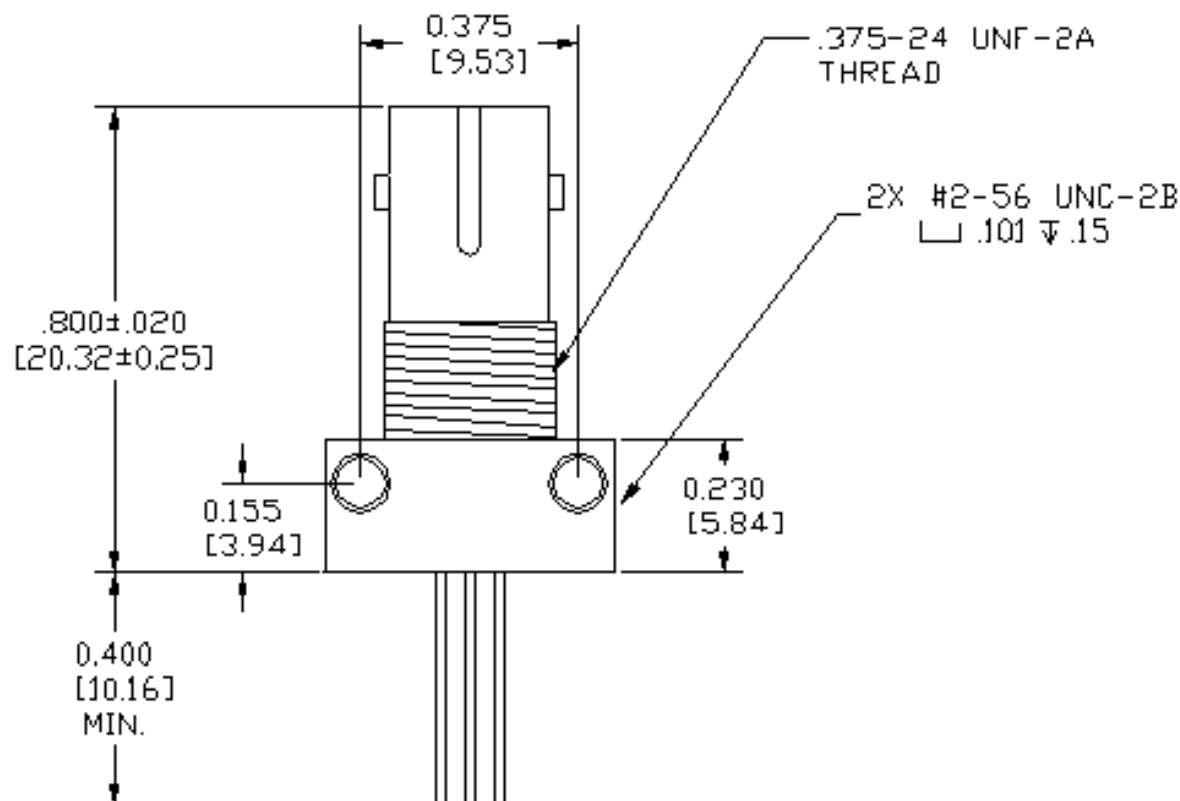


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General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

Mechanical Data - OPF792



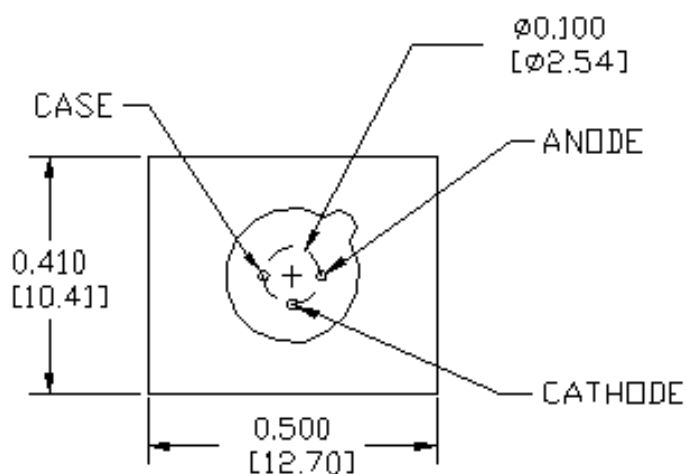
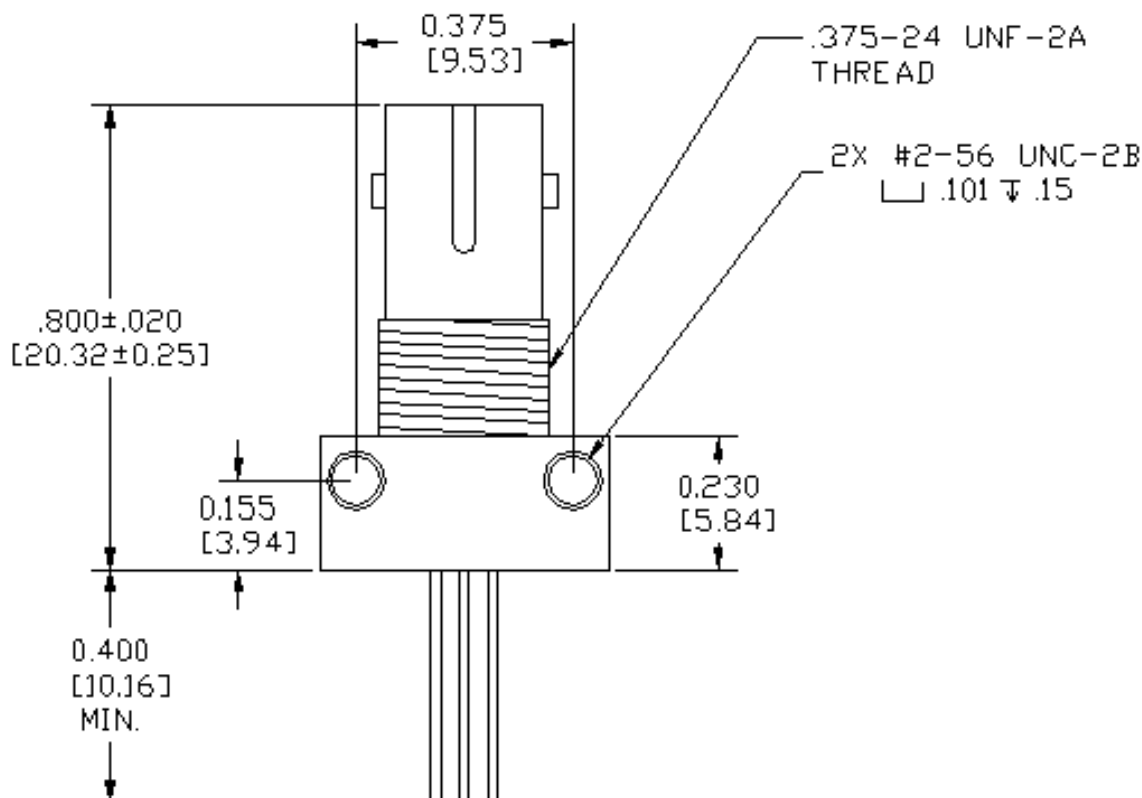
DIMENSIONS ARE IN: [MILLIMETERS]
INCHES

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TT Electronics | OPTEK Technology
2900 E. Plano Pkwy, Plano, TX 75074 | Ph: +1 972 323 2200
www.ttelectronics.com | sensors@ttelectronics.com

Mechanical Data - OPF794



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INCHES

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Electrical Specifications

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 ⁽¹⁾	260° C
Maximum Reverse Voltage	50 VDC

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

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
R	Responsivity	0.45	0.55		A/W	$V_R = 5.0\text{V}$; 50/125 μm fiber; $\lambda = 850\text{nm}$
I_D	Dark Current		0.5	5.0	nA	$V_R = 5.0\text{V}$
λ_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	$V_R = 5.0\text{V}$

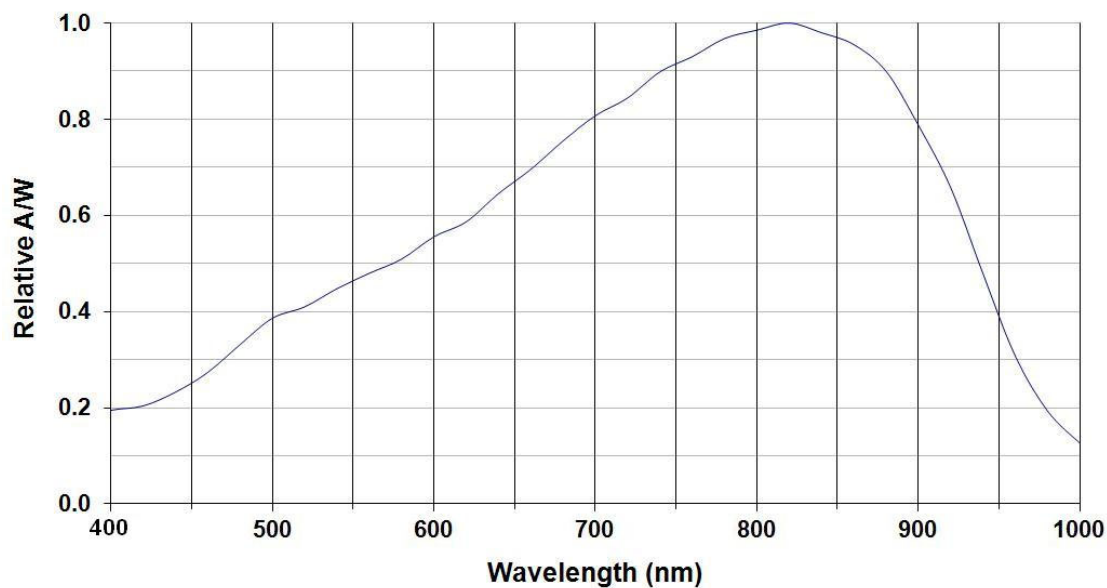
Notes:

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

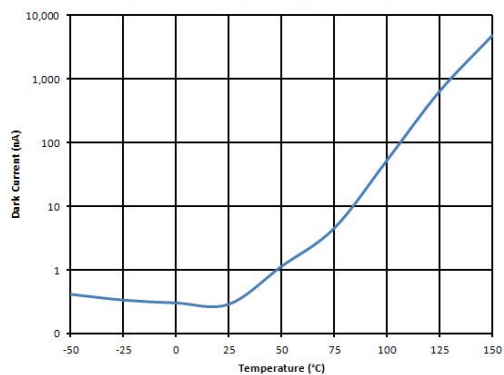
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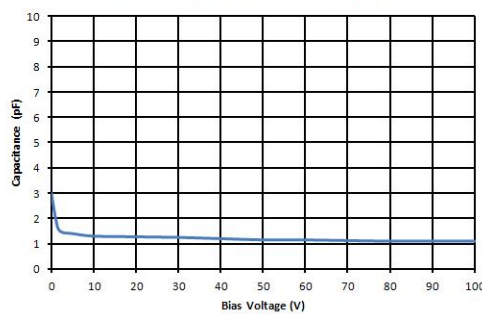
Performance Typical Responsivity



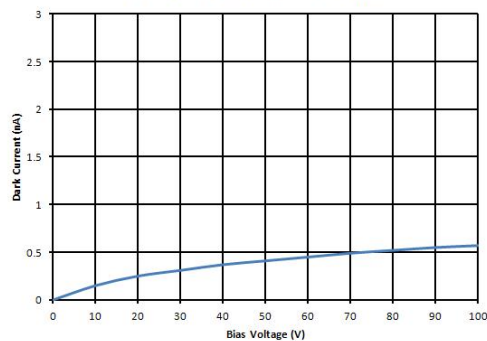
Dark Current vs. Temperature



Capacitance vs. Bias Voltage



Dark Current vs. Bias Voltage



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