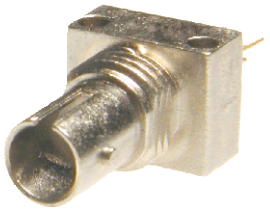
Fiber Optic Detector

OPF472



Features:

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

Description:

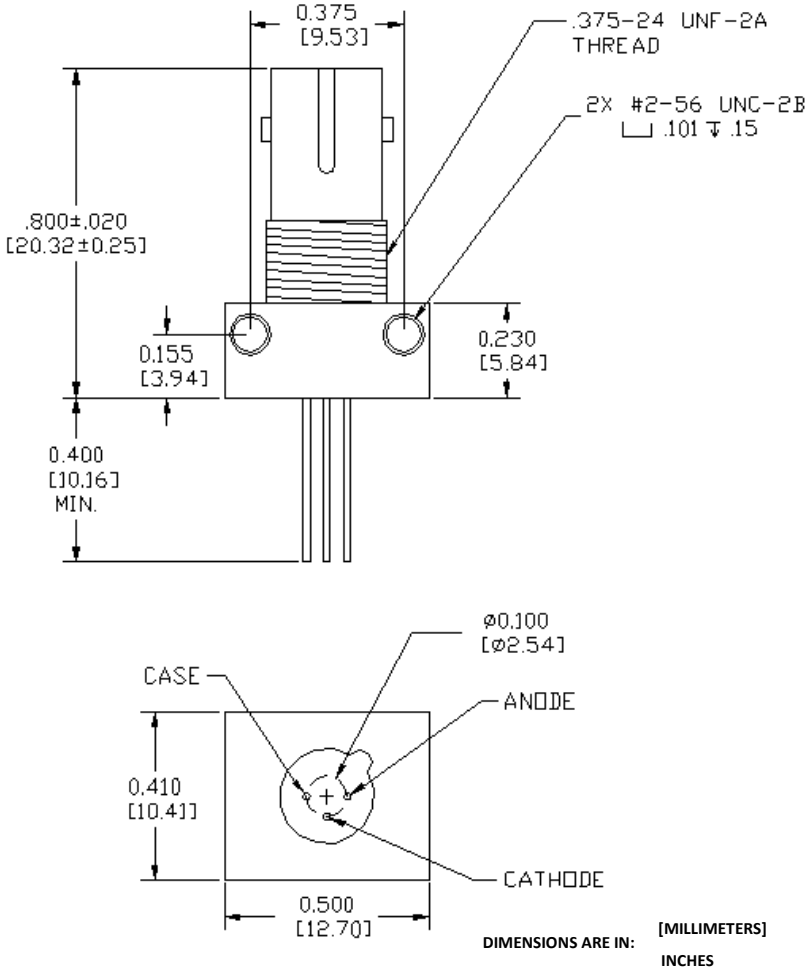
The OPF472 is a low noise silicon PIN photodiode mounted in a low cost package for fiber optic applications. It offers fast response at moderate bias and is compatible with LED and laser diode sources in the 800-1000 nm wavelength region. Low capacitance improves signal to noise performance in typical short haul LAN applications.

The OPF472 is designed to be compatible with multimode optical fibers from 50/125 to 200/230 microns.

OPF472 receivers are supplied with a lock washer, jam nut, #2-56 mounting screws and dust cap.

Applications:

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



RoHS

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General Note
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Electrical Specifications

Absolute Maximum Ratings (T_A = 25° C unless otherwise noted)

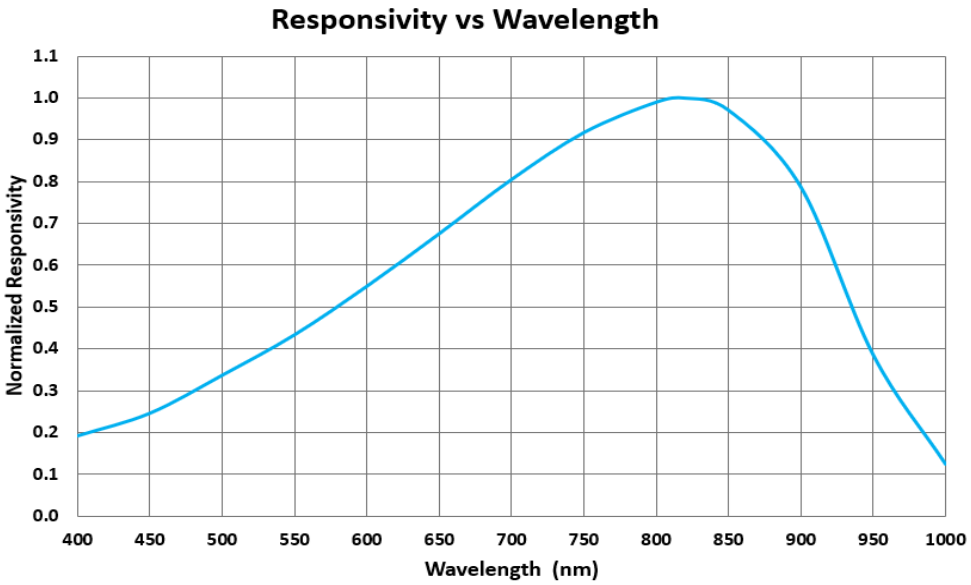
Storage Temperature Range	-55° C to +100° C
Operating Temperature Range	-40° C to +85° C
Lead Soldering Temperature [1]	260° C
Continuous Power Dissipation [2]	200 mW
Maximum Reverse Voltage	100 VDC

Electrical Characteristics (T_A = 25° C unless otherwise noted)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
R	Responsivity	0.45	0.55	-	A/W	V_R = 5.0 V; 50/125 µm fiber; λ = 850 nm
I_D	Dark Current	-	0.1	5.0	nA	V_R = 5.0 V
λ_p	Peak Response Wavelength	-	820	-	nm	
t_r	Output Rise Time	-	6.0	-	ns	V_R = 15 V; R_L = 50 Ω, 10%-90%
C_T	Total Capacitance	-	3.0	-	pF	V_R = 20 V

Notes:
(1) Maximum of 5 seconds with soldering iron. Duration can be extended to 10 seconds when flow soldering. RMA flux is recommended.
(2) Derate linearly at 2.67 mW/° C above 25° C.

Typical Performance



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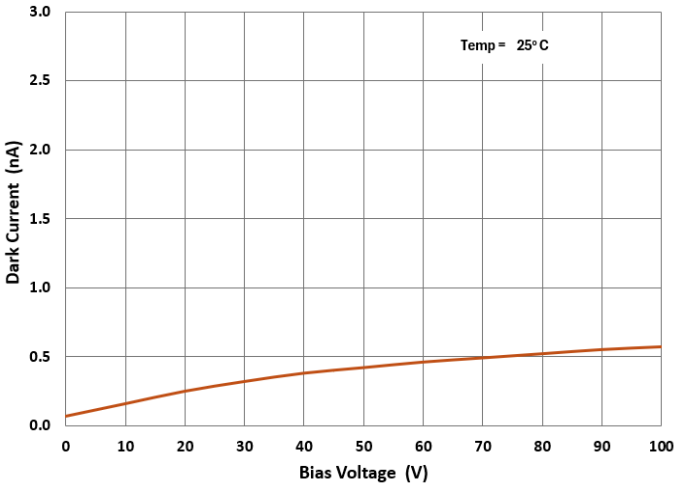
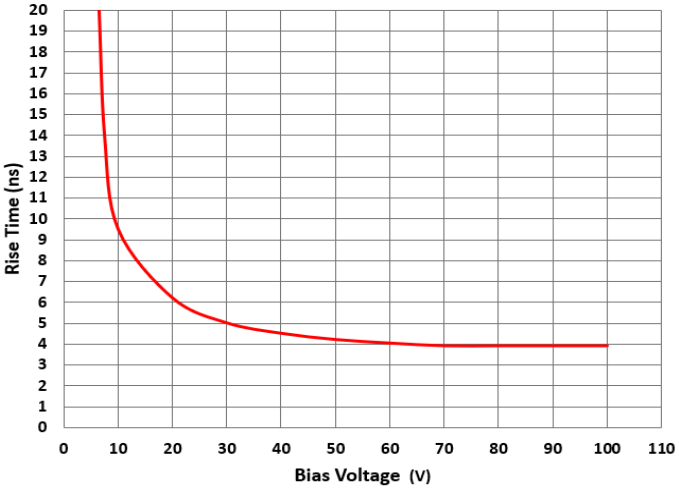
Typical Performance

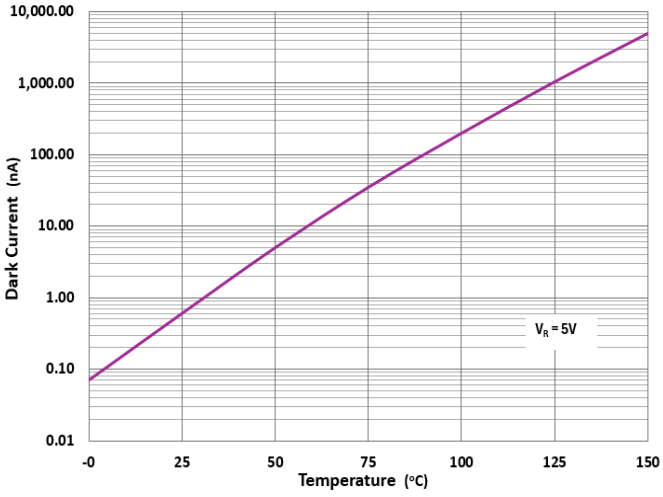
Dark Current vs Bias Voltage



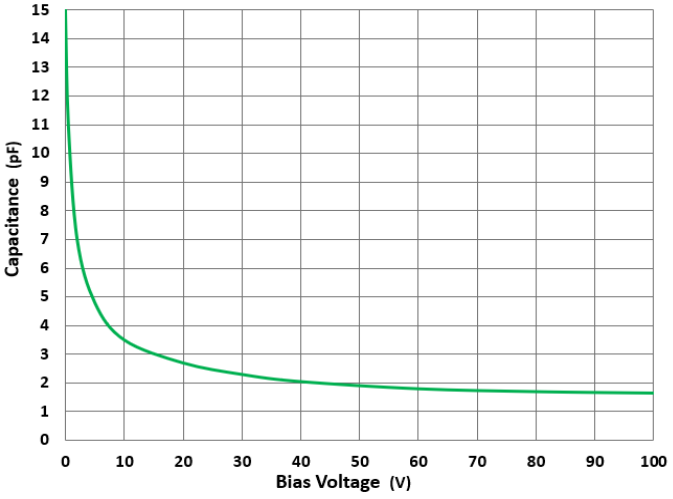
Rise Time vs Bias Voltage



Dark Current vs Temperature



Capacitance vs Bias Voltage



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