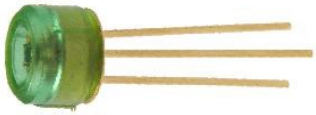
Fiber Optic Detector

OPF480



Features:

- Electrically isolated plastic cap package
- High speed, low capacitance
- Designed to self align in the 0.228 diameter bore of standard fiber optic receptacles.
- Press fit simplified component installation
- 100MHz operation maximum

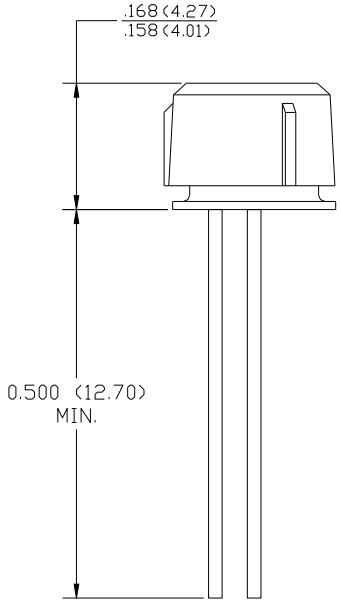
Description:

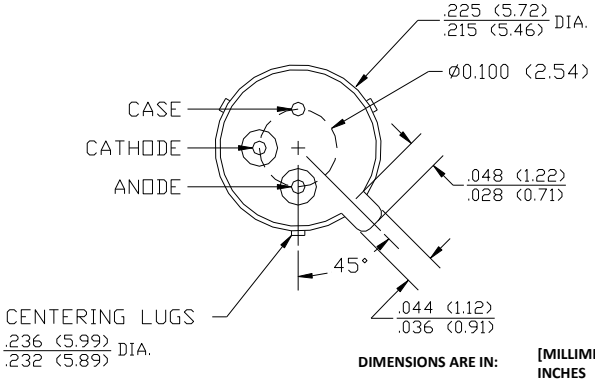
The OPF480 is a low noise silicon PIN photodiode mounted in a low cost package for fiber optic applications. It offers fast response at moderate bias and is compatible with LED and laser diode sources in the 800-1000 nm wavelength region. Low capacitance improves signal to noise performance in typical short haul LAN applications.

The OPF480 is designed to be compatible with multimode optical fibers from 50/125 to 200/230 microns.

Applications:

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





General Note
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Electrical Specifications

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

Storage Temperature Range	-55° C to +115° C
Operating Temperature Range	-40° C to +100° 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 = 5.0V; 50/125µm fiber; l = 850nm
I_D	Dark Current		0.1	5.0	nA	V_R = 5.0V
l_p	Peak Response Wavelength		905		nm	
t_r	Output Rise Time		2.0		ns	V_R = 5V; R_L = 50Ω, 10%-90%
C_T	Total Capacitance		1.5	2.0	pF	V_R = 5V
FoV	Field of View		80		deg	

Notes:
1. Maximum of 5 seconds with soldering iron. Duration can be extended to 10 seconds when flow soldering. RMA flux is recommended.
2. De-rate linearly at 2.13mW/°C above 25°C .

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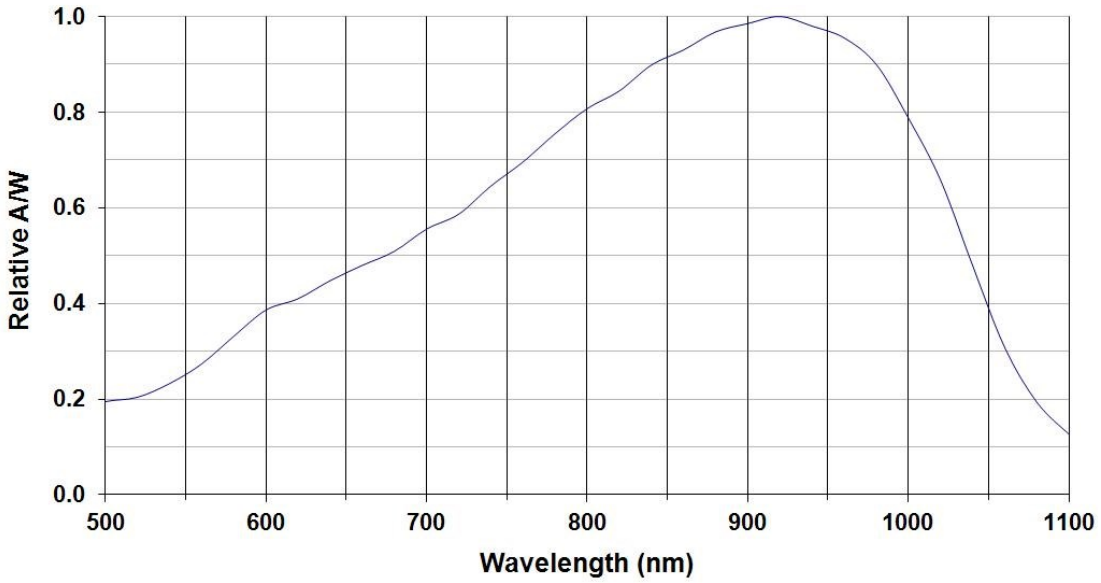
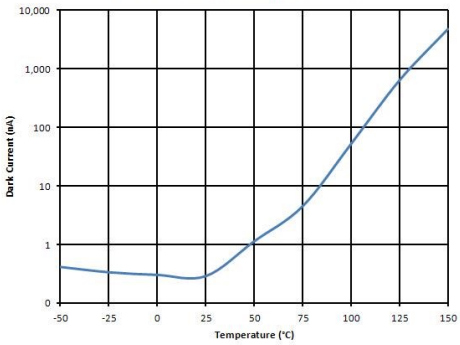
Performance

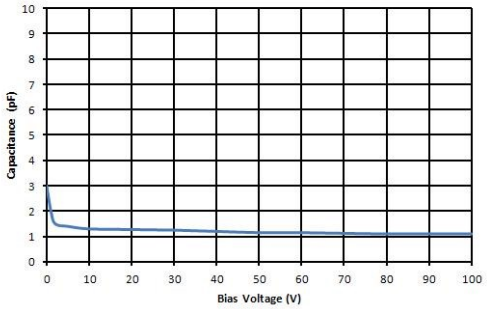
Typical Responsivity



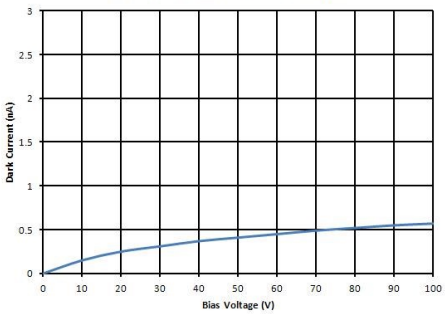
Dark Current vs. Temperature



Capacitance vs. Bias Voltage



Dark Current vs. Bias Voltage



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