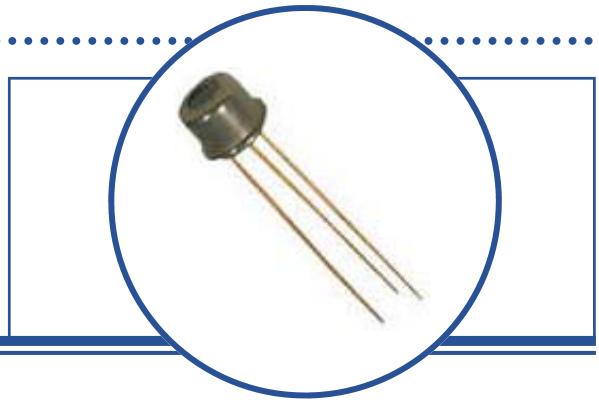
Fiber Optic Detector

OPF420

TT electronics
OPTEK Technology

OPF420

- Electrically isolated plastic cap package
- High speed, low capacitance
- Metal can for improved noise immunity
- 35MHz operation minimum



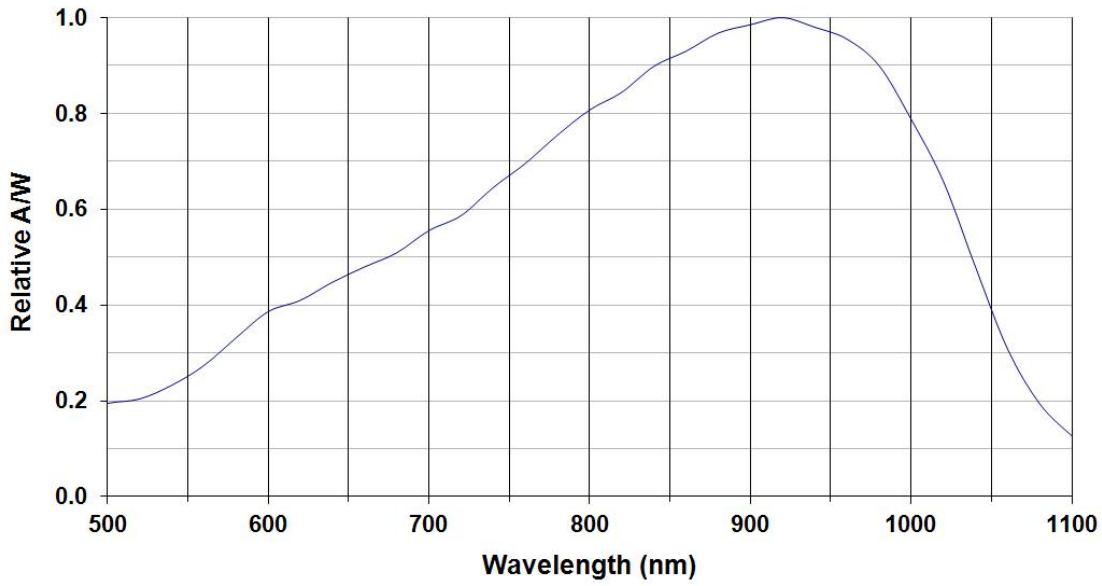
The OPF420 is a low noise silicon PIN photodiode mounted in a low cost package for fiber optic applications. It offers fast response at moderate bias and is compatible with LED and laser diode sources in the 800-1000 nm wavelength region. Low capacitance improves signal to noise performance in typical short haul LAN applications.

The OPF420 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

Typical Responsivity



Pb

RoHS

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

OPTEK Technology Inc.— 1645 Wallace Drive, Carrollton, Texas 75006
Phone: (800) 341-4747 FAX: (972) 323– 2396 sensors@optekinc.com www.optekinc.com

Fiber Optic Detector
OPF420

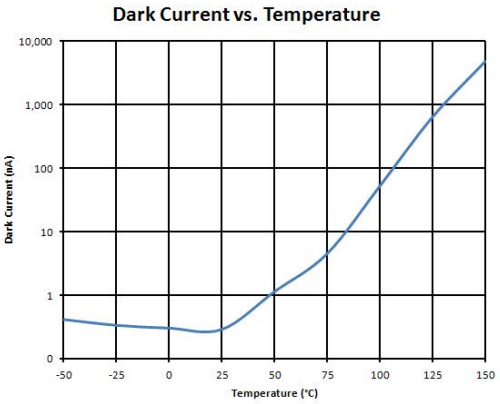
Absolute Maximum Ratings
T_A = 25° C unless otherwise noted

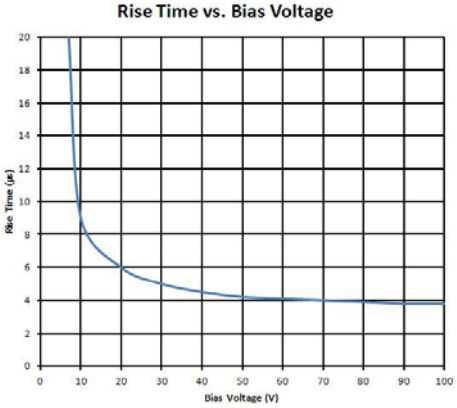
Storage Temperature Range	-65° C to +150° C
Operating Temperature Range	-55° C to +125° C
Lead Soldering Temperature[1]	260° C
Continuous Power Dissipation[2]	200 mW
Maximum Reverse Voltage	100 VDC

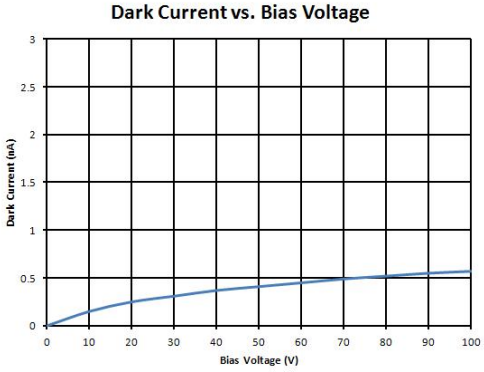
Electrical/Optical Characteristics (T_A = 25°C unless otherwise noted)

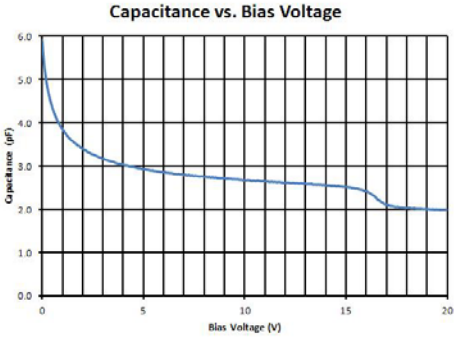
SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
R	Responsivity	0.45	0.55		A/W	V_R = 5.0V; 50/125µm fiber; λ = 850nm
I_D	Dark Current		0.1	5.0	nA	V_R = 5.0V
λ_p	Peak Response Wavelength		905		nm	
t_r	Output Rise Time		6.0		ns	V_R = 15V; R_L = 50Ω, 10%-90%
C_T	Total Capacitance		3.0		pF	V_R = 20V
FoV	Field 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 1.60mW/°C above 25°C .





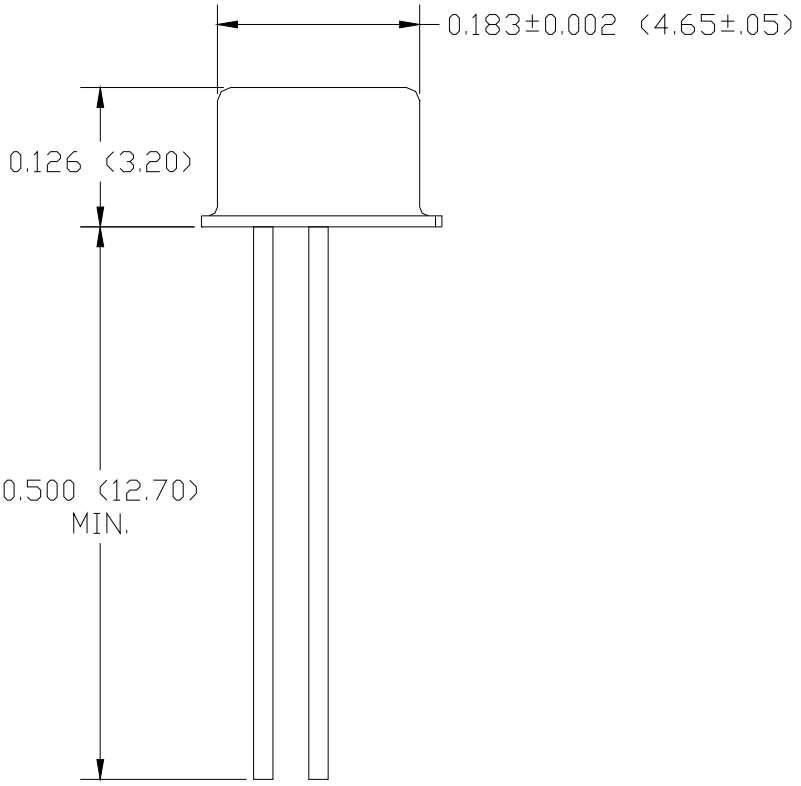


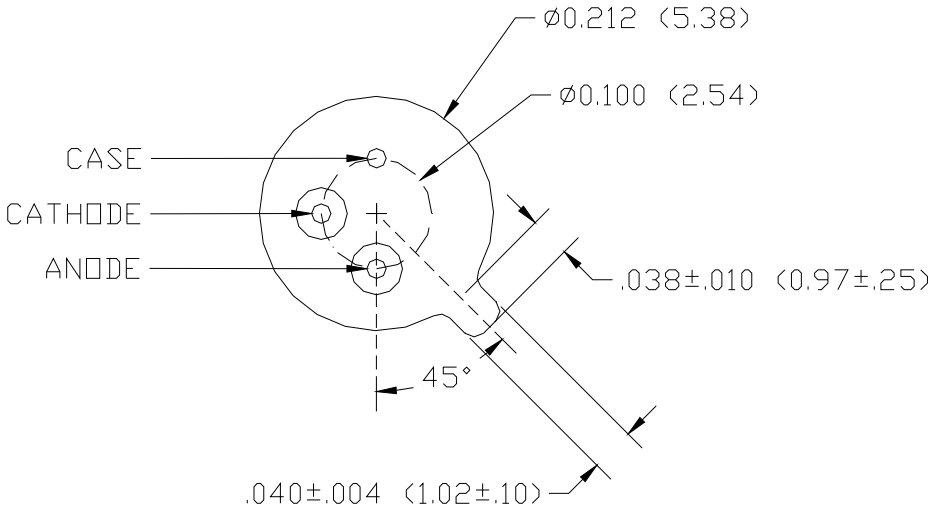


e in order to improve design and to supply the best product possible.

OPTEK Technology Inc.— 1645 Wallace Drive, Carrollton, Texas 75006
Phone: (800) 341-4747 FAX: (972) 323– 2396 sensors@optekinc.com www.optekinc.com

Mechanical Data





DIMENSIONS ARE IN INCHES (MILLIMETERS)