# **Fiber Optic Detector**

## **OPF430**



### Features:

- Electrically isolated plastic cap package
- High speed, low capacitance
- Metal can for improved noise immunity
- 100MHz operation minimum



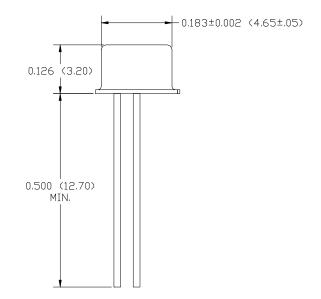
### Description:

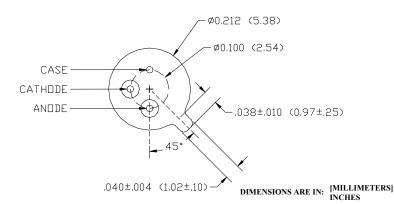
The OPF430 is a low noise silicon PIN photodiode mounted in a low cost package for fiber optic applications. It offers fast response at moderate bias and is compatible with LED and laser diode sources in the 800-1000 nm wavelength region. Low capacitance improves signal to noise performance in typical short haul LAN applications.

The OPF430 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







General Note

# **Fiber Optic Detector**

**OPF430** 



## **Electrical Specifications**

Absolute Maximum Ratings (T <sub>A</sub> = 25° C unless otherwise noted)			
Storage Temperature Range	-65° C to +150° C		
Operating Temperature Range	-55° C to +125° C		
Lead Soldering Temperature <sup>(1)</sup>	260° C		
Continuous Power Dissipation <sup>(2)</sup>	200 mW		
Maximum Reverse Voltage	100 VDC		

Electrical Characteristics (T <sub>A</sub> = 25° C unless otherwise noted)								
SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS		
R	Responsivity	0.45	0.55		A/W	$V_R = 5.0V$ ; 50/125 $\mu$ m fiber; $\lambda = 850$ nm		
I <sub>D</sub>	Dark Current		0.1	5.0	nA	V <sub>R</sub> = 5.0V		
$\lambda_{p}$	Peak Response Wavelength		905		nm			
t <sub>r</sub>	Output Rise Time		2.0		ns	V <sub>R</sub> = 5V; R <sub>L</sub> = 50W, 10%-90%		
$C_{T}$	Total Capacitance		1.5	2.0	pF	V <sub>R</sub> = 5V		
FoV	Field of View		80		deg			

#### Notes:

<sup>1.</sup> Maximum of 5 seconds with soldering iron. Duration can be extended to 10 seconds when flow soldering. RMA flux is recommended.

<sup>2.</sup> De-rate linearly at 1.60mW/°C above 25°C .

# **Fiber Optic Detector**

**OPF430** 



## Performance

### **Typical Responsivity**

