# imall

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We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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### **OPF347A**



#### Features:

- Low Cost 850 nm LED technology
- Popular ST<sup>®</sup> style receptacle
- Pre-tested with fiber to assure performance
- Component pre-mounted and ready to use
- Extended temperature range

#### **Description:**

The OPF347A fiber optic transmitters is a high performance device packaged for data communication links. This transmitter is an 850nm GaAlAs LED and is specifically designed to efficiently launch optical power into fibers ranging in size from  $50/125\mu$ m up to  $200/300\mu$ m diameter fiber. Multiple power ranges with upper and lower limits are offered which allows the designer to select a device best suited for the application.

This product's combination of features including high speed and efficient coupled power makes it an ideal transmitter for integration into all types of data communications equipment.

The mechanical design of this packaged is intended for PC Board or panel mounting. It is shipped with a lock washer, jam nut, 2 #2-56 screws, and a protective dust cap.

#### **Applications:**

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

Typical Coupled Power I <sub>F</sub> = 100mA, 25°C			
Fiber Size	Туре	N.A.	OPF347A
50/125 μm	Graded Index	0.20	25μW
62.5/125 μm	Graded Index	0.28	45μW
100/140 μm	Graded Index	0.29	125µW
200/300 μm	Step Index	0.41	475µW



All Optek OPF LED emitters are AEL Class I as defined by IEC 60825-1 and are Risk Group 1 (Low-Risk) as defined by IEC 62471.

General Note

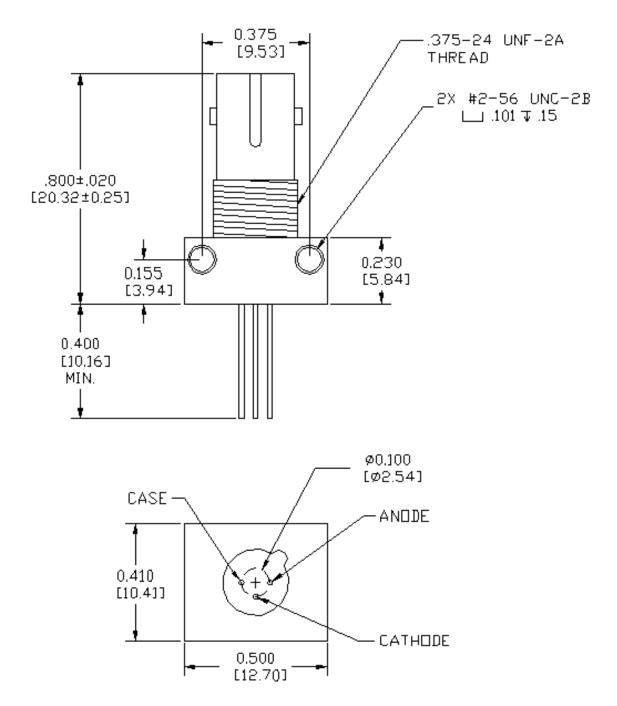
TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

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### **OPF347A**



### **Mechanical Data**



#### DIMENSIONS ARE IN INCHES (MILLIMETERS)

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### **OPF347A**



### **Electrical Specifications**

Absolute Maximum Ratings (T <sub>A</sub> = 25° C unless otherwise noted)		
Storage Temperature Range	-55° C to +150° C	
Operating Temperature Range	-40° C to +125° C	
Lead Soldering Temperature <sup>(1)</sup>	260° C	
Continuous Forward Current <sup>(2)</sup>	100 mA	
Maximum Reverse Voltage	1.0 V	

#### Electrical Characteristics (T<sub>A</sub> = 25° C unless otherwise noted) SYMBOL PARAMETER MIN TYP MAX UNITS **TEST CONDITIONS Total Coupled Power** $\mathsf{P}_{\mathsf{OC}}$ OPF347A 20.0 25.0 μW $I_{F} = 100 \text{ mA}$ 50/125 mm Fiber, NA = 0.20 $I_{F} = 100 \text{ mA}$ $V_{F}$ Forward Voltage 1.8 2.2 V **Reverse Voltage** 1.8 V $I_{R} = 100 \ \mu A$ $V_R$ I<sub>F</sub> = 50 mA λ Wavelength 830 850 870 nm **Optical Bandwidth** I<sub>F</sub> = 50 mA $\Delta \lambda$ 45 60 nm $I_F = 100 \text{ mA}; 10\% \text{ to } 90\%^{(3)}$ **Rise and Fall Time** 4.5 3.5 ns t<sub>r</sub>,t<sub>f</sub>

Notes:

- 2. De-rate linearly at 0.64 mA /°C above  $25^{\circ}$ C .
- 3. No Pre-bias.
- 4. All Optek fiber optic LED products are subjected to 100% burn-in as part of its quality control process. The burn-in conditions are 96 hours at 100mA drive current and 25°C ambient temperature.

General Note

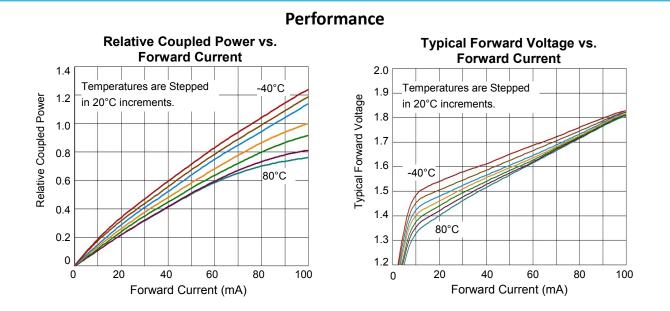
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<sup>1.</sup> Maximum of 5 seconds with soldering iron. Duration can be extended to 10 seconds when flow soldering. RMA flux is recommended.

**OPF347A** 





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