

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

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!



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OPF347 Family



Features:

- Low Cost 850 nm LED technology
- Popular ST[®] style receptacle
- Pre-tested with fiber to assure performance
- Component pre-mounted and ready to use
- Extended temperature range
- 75MHz operation



Description:

The OPF347 family fiber optic transmitters are high performance devices 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 50/125µm up to 200/300µm 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 _F = 100mA, 25°C										
Fiber Size	Туре	N.A.	OPF347A	OPF347B	OPF347C	OPF347D				
50/125 μm	Graded Index	0.20	25μW	18μW	12.5μW	7.5μW				
62.5/125 μm	Graded Index	0.28	45μW	34μW	22μW	14μW				
100/140 μm	Graded Index	0.29	125μW	95μW	62μW	38μW				
200/300 μm	Step Index	0.41	475μW	340μW	235μW	140μW				





ESD Class 2

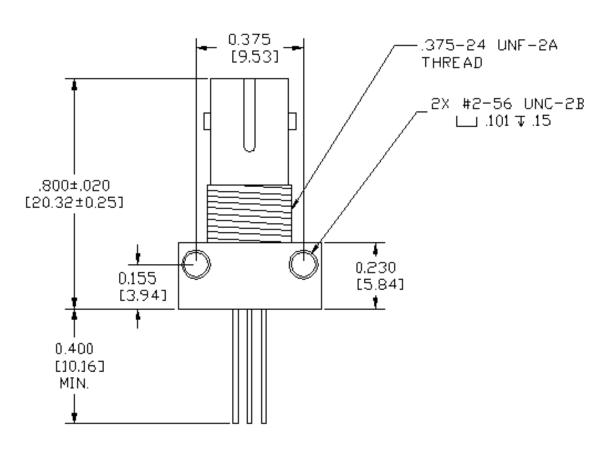
 $\mathsf{ST}^{^{(\!\!R \!\!)}}$ is a registered trademark of AT&T.

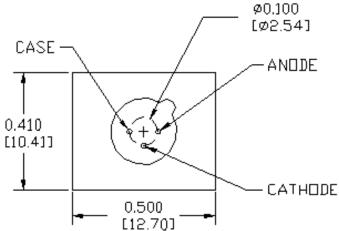
All Optek OPF LED emitters are AEL Class I as defined by IEC 60825-1 and are Risk Group 1 (Low-Risk) as defined by IEC 62471.

OPF347 Family



Mechanical Data





DIMENSIONS ARE IN INCHES (MILLIMETERS)

OPF347 Family



Electrical Specifications

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

Electrical Characteristics (T _A = 25° C unless otherwise noted)										
SYMBOL	PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITIONS			
P _{oc}	Total Coupled Power 50/125 mm Fiber, NA = 0.20	OPF347A	20.0	25.0		μW				
		OPF347B	15.0	18.0			I _F = 100 mA			
		OPF347C	10.0	12.5						
		OPF347D	5.0	7.5						
V_{F}	Forward Voltage			1.8	2.2	V	I _F = 100 mA			
V_R	Reverse Voltage		1.8			V	Ι _R = 100 μΑ			
λ	Wavelength		830	850	870	nm	I _F = 50 mA			
Δλ	Optical Bandwidth			45	60	nm	I _F = 50 mA			
t _r ,t _f	Rise and Fall Time			3.5	4.5	ns	I _F = 100 mA; 10% to 90% ⁽³⁾			

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 0.64 mA /°C above 25°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.

OPF347 Family



Performance

