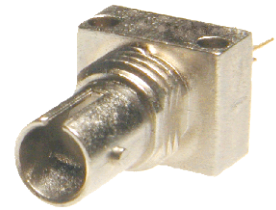


Fiber Optic Transmitter

OPF372 Family



Features:

- Low Cost 850 nm LED technology
- Popular ST® style receptacle
- Pre-tested with optical fiber to assure performance
- Component pre-mounted and ready to use
- 35 MHz operation
- Subjected to 100% Burn-in at 100 mA at 25° C

Description:

The OPF372 family fiber optic transmitters are high performance devices packaged for data communication links. This transmitter is an 850 nm GaAlAs LED and is specifically designed to efficiently launch optical power into fibers ranging in size from 50/125 μm up to 200/230 μm 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 package is intended for printed circuit 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 $I_F = 100 \text{ mA}, 25^\circ \text{ C}$				
Fiber Size	Type	N.A.	OPF372A	OPF372B
50/125 μm	Graded Index	0.20	29 μW	19 μW
62.5/125 μm	Graded Index	0.28	89 μW	51 μW
100/140 μm	Graded Index	0.29	200 μW	129 μW
200/230 μm	Step Index	0.41	750 μW	606 μW



RoHS



ESD Class 2

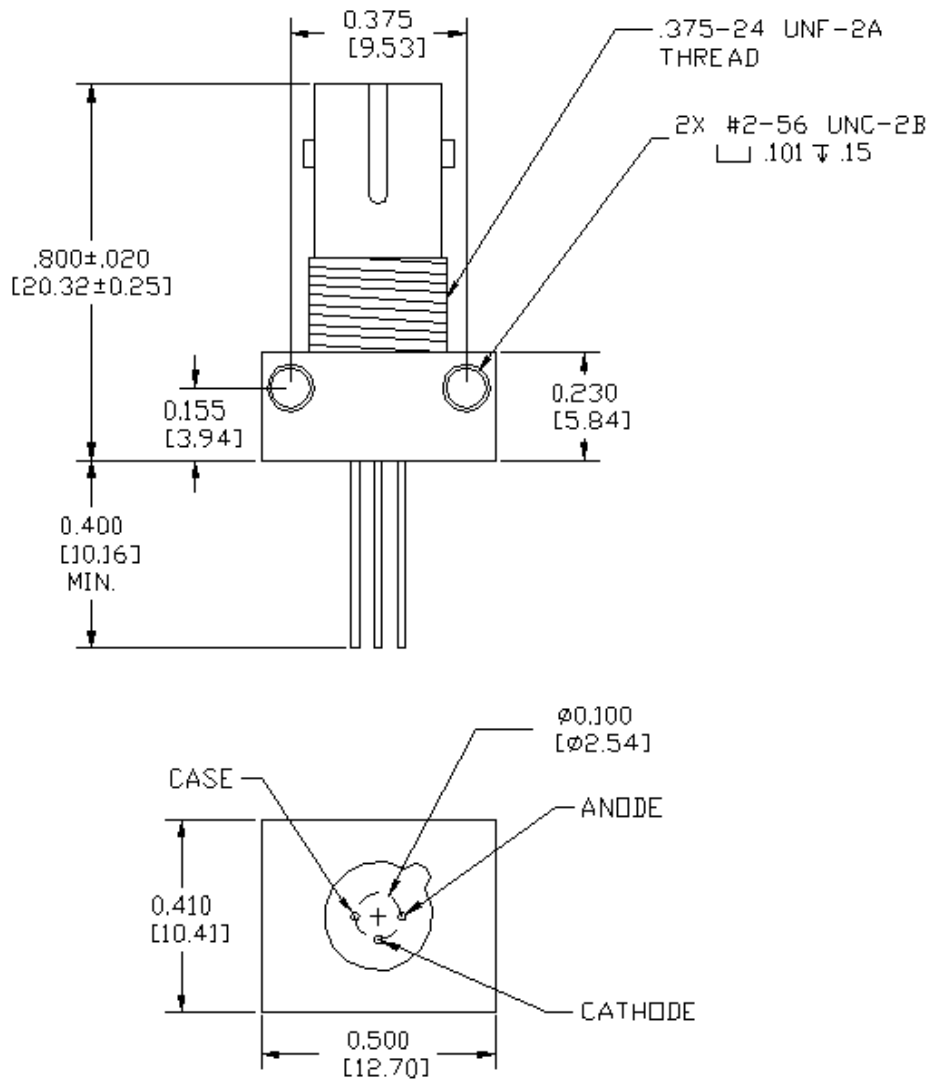
ST® is a registered trademark of AT&T.

General Note

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Mechanical Data



DIMENSIONS ARE IN INCHES (MILLIMETERS)

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Electrical Specifications

Absolute Maximum Ratings ($T_A = 25^\circ \text{C}$ unless otherwise noted)

Storage Temperature Range	-55° C to +100° C
Operating Temperature Range	-40° C to +85° C
Lead Soldering Temperature ⁽¹⁾	260° C
Continuous Forward Current ⁽²⁾	100 mA
Maximum Reverse Voltage	1.0 V

Electrical Characteristics ($T_A = 25^\circ \text{C}$ unless otherwise noted)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
P_{OC}	Total Coupled Power	25.0	29.0	-	μW	$I_F = 100 \text{ mA}$
	50/125 μm Fiber, NA = 0.20	15.0	19.0	-		
V_F	Forward Voltage	-	1.8	2.2	V	$I_F = 100 \text{ mA}$
V_R	Reverse Voltage	1.8	-	-	V	$I_R = 100 \mu\text{A}$
λ	Wavelength	830	850	870	nm	$I_F = 50 \text{ mA}$
$D\lambda$	Optical Bandwidth	-	50	60	nm	$I_F = 50 \text{ mA}$
t_r, t_f ⁽³⁾	Rise and Fall Time	-	6.0	10.0	ns	$I_F = 100 \text{ mA}$, 10% to 90%

Notes:

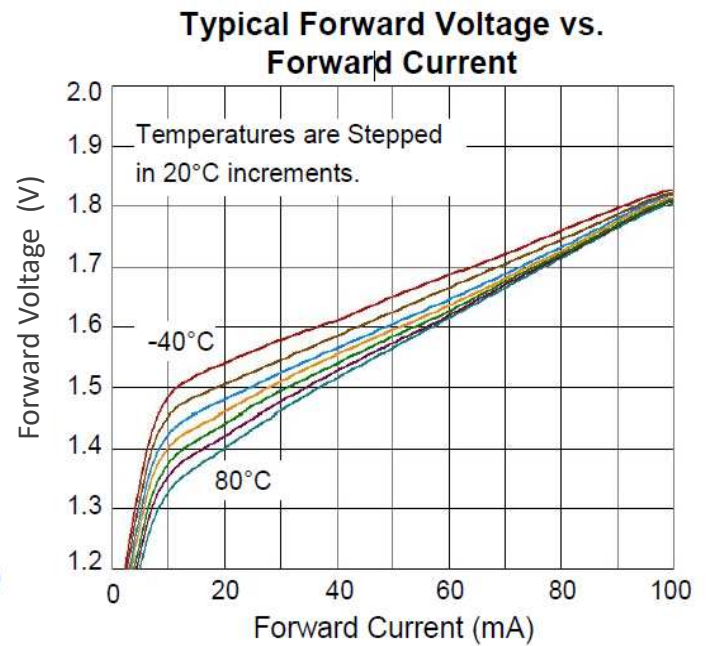
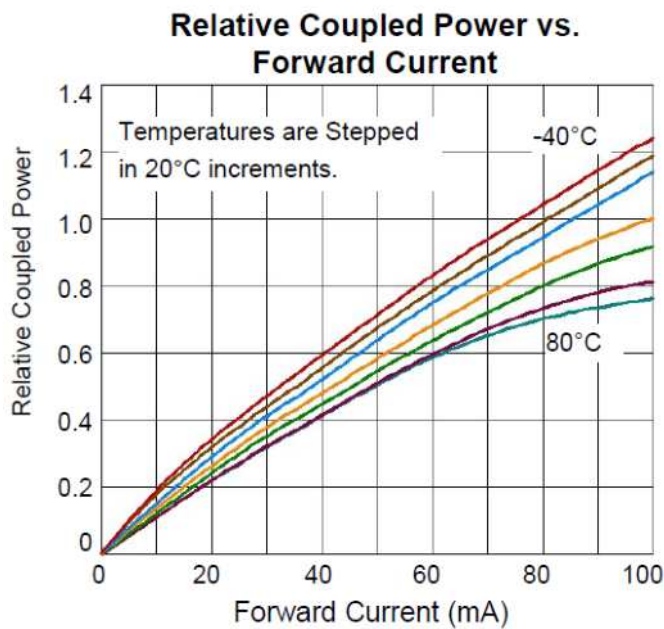
- (1) Maximum of 5 seconds with soldering iron. Duration can be extended to 10 seconds when flow soldering. RMA flux is recommended.
- (2) Derate linearly at 1.33 mA /° C above 25° C.
- (3) No Pre-bias.
- (4) All Optek fiber optic LED products are subjected to 100% burn-in as part of their quality control process. The burn-in conditions are 96 hours at 100 mA drive current and 25° C ambient temperature.

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Typical Performance



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