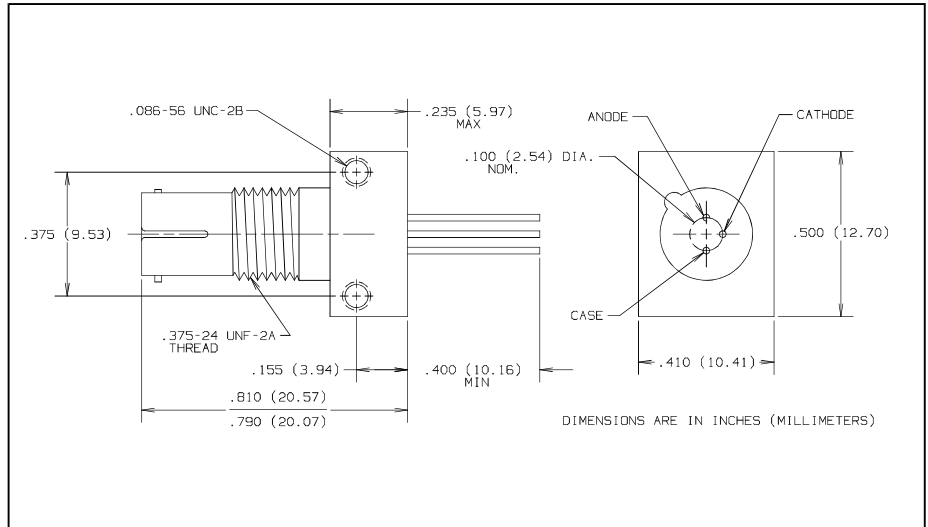
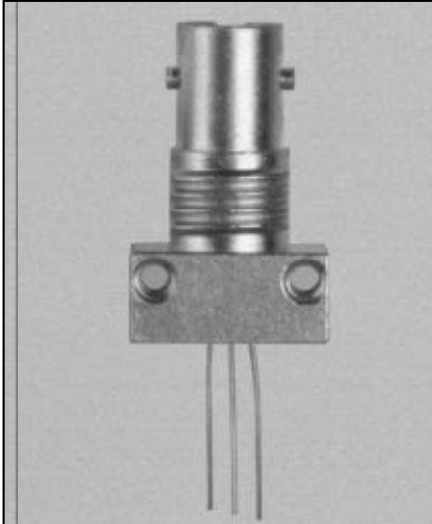


Fiber Optic GaAlAs LED in ST* Receptacle Types OPF322A, OPF322B, OPF322C



Features

- Component pre-mounted and ready to use
- Pre-tested with fiber to assure performance
- Popular ST* style receptacle

Description

The OPF322 series LED consists of a hermetic LED, pre-mounted and aligned in an ST* receptacle. This configuration is designed for PC board or panel mounting. Includes lock washer and jam nut, two 2-56 screws, and a dust cap.

The LED's are designed to interface with multimode optical fibers from 50/125 to 200/300 microns.

*ST is a registered trademark of AT&T.

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

Reverse Voltage	1.0 V
Continuous Forward Current	100 mA ⁽⁴⁾
Storage Temperature Range	-55 ^o C to +125 ^o C
Operating Temperature Range	-40 ^o C to +100 ^o C
Lead Soldering Temperature [1/16 inch (1.6 mm) from case for 5 sec. with soldering iron]	240 ^o C ⁽¹⁾

Notes:

- (1) RMA flux is recommended. Duration can be extended to 10 sec. max when flow soldering.
- (2) Graded index fiber, 50 μm core, N.A. = 0.20.
- (3) To convert radiant power output to dBm, use the following expression $\text{dBm} = 10 \log (\mu\text{W}/1000)$.
- (4) Derate linearly @ 1.0 mA/^o C above 25^o C.
- (5) Prebias @ 5 mA current

LED Burn-in

All LED's are subject to 100% burn-in testing. Test conditions are 96 hours at 100 mA continuous current in 25^o C ambient.

TYPICAL COUPLED POWER into OPTICAL FIBER

Typical Coupled Power					
$I_F = 100\text{mA} @ 25^\circ\text{C}$					
Fiber	Refractive Index	N.A.	OPF322C	OPF322B	OPF322A
50/125 μm	Graded	0.20	7.5 μW	12.5 μW	19 μW
62.5/125 μm	Graded	0.28	16 μW	22 μW	34 μW
100/140 μm	Graded	0.29	38 μW	62 μW	95 μW
200/300 μm^*	Step	0.41	140 μW	235 μW	360 μW

*PCS - Plastic Clad Silica

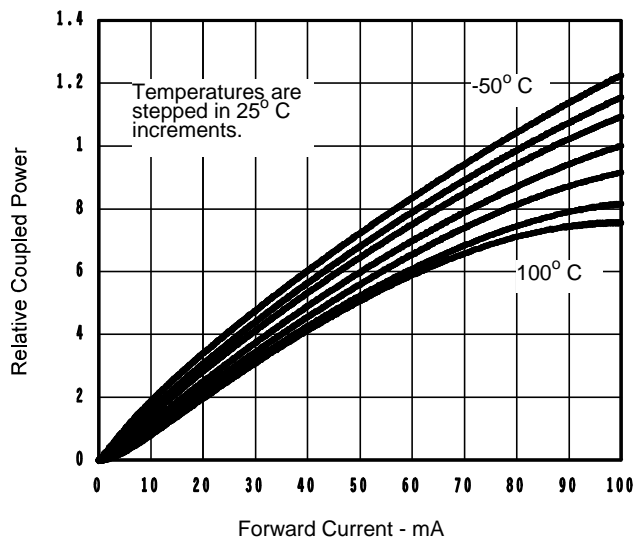
Types OPF322A, OPF322B, OPF322C

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

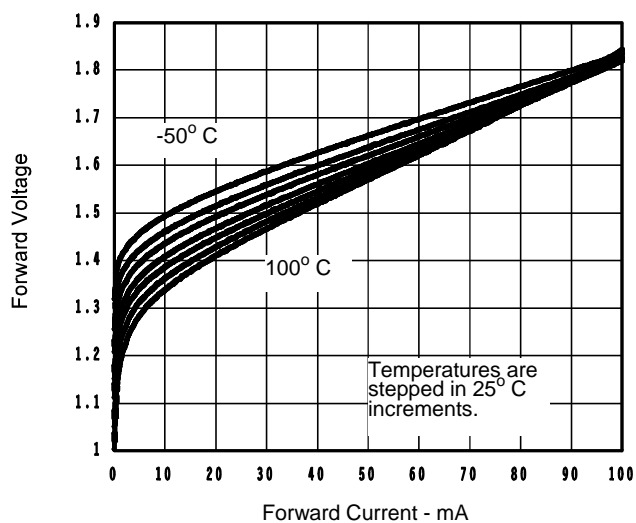
SYMBOL	PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITIONS
P_O	Radiant Power Output	OPF322C	5.0	7.5		μW	$I_F = 100\text{ mA}^{(2)}$
		OPF322B	10.0	12.5			
		OPF322A	15.0	19.0			
V_F	Forward Voltage			1.8	2.0	V	$I_F = 100\text{ mA}$
λ_p	Peak Output Wavelength		830	850	870	nm	$I_F = 50\text{ mA}$
B	Spectral Bandwidth Between Half Power Points			35		nm	$I_F = 50\text{ mA}$
t_r	Output Rise Time			6.0	8.0	ns	$I_F = 100\text{ mA}, 10\%-90\%^{(5)}$
t_f	Output Fall Time			6.0	10.0	ns	$I_F = 100\text{ mA}, 90\%-10\%^{(5)}$

Typical Performance Curves

Relative Coupled Power vs. Forward Current



Forward Voltage vs. Forward Current



FIBER OPTIC COMPONENTS

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

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