

Fiber Optic Transmitter

OPF350A Comparison to OPF370A



Features:

- 850nm LED technology
- TO-18 plastic clear-cap package
- High thermal stability
- High optical coupling efficiency to multimode fiber
- Industrial temperature range

Key Message:

OPF350A is a replacement for OPF370A with a shorter lead time of 10 weeks.

Description:

The OPF350A fiber optic transmitter is a high performance device 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 50/125µm up to 200/300µm diameter fiber.

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.

Applications:

- Power generation communication
- 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	Type	N.A.	OPF350A	OPF370A
50/125 µm	Graded Index	0.20	29µW	29µW
62.5/125 µm	Graded Index	0.28	83µW	89µW
100/140 µm	Graded Index	0.29	240µW	200µW
200/300 µm	Step Index	0.41	810µW	750µW

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.



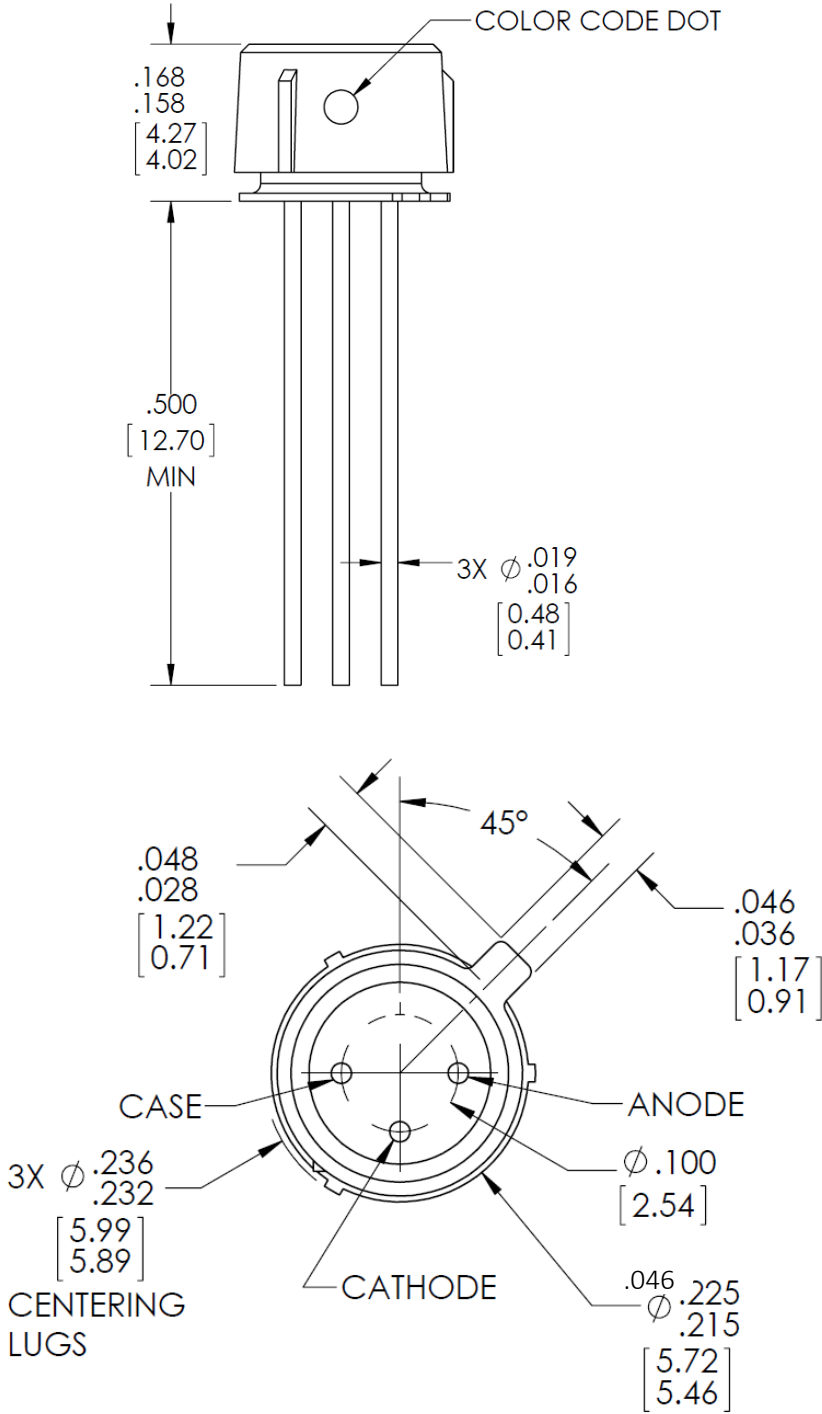
General Note
TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics’ own data and is considered accurate at time of going to print.

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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 +115° C
Operating Temperature Range	-40° C to +100° 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
$P_{T50}^{(3)}$	Total Coupled Power	OPF350A	25.0	29.0		μW	$I_F = 100\text{ mA}$
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	$I_F = 50\text{ mA}$
$\Delta\lambda$	Optical Bandwidth			50	60	nm	$I_F = 50\text{ mA}$
t_r, t_f	Rise and Fall Time			6.0	10.0	ns	$I_F = 100\text{ mA}; 10\% \text{ to } 90\%^{(4)}$

Notes:

- Maximum of 5 seconds with soldering iron. Duration can be extended to 10 seconds when flow soldering. RMA flux is recommended.
- De-rate linearly at 1.0mA /°C above 25°C .
- The component must be actively aligned into the mating fiber cable assembly to achieve optimal performance.
- No Pre-bias.
- 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.

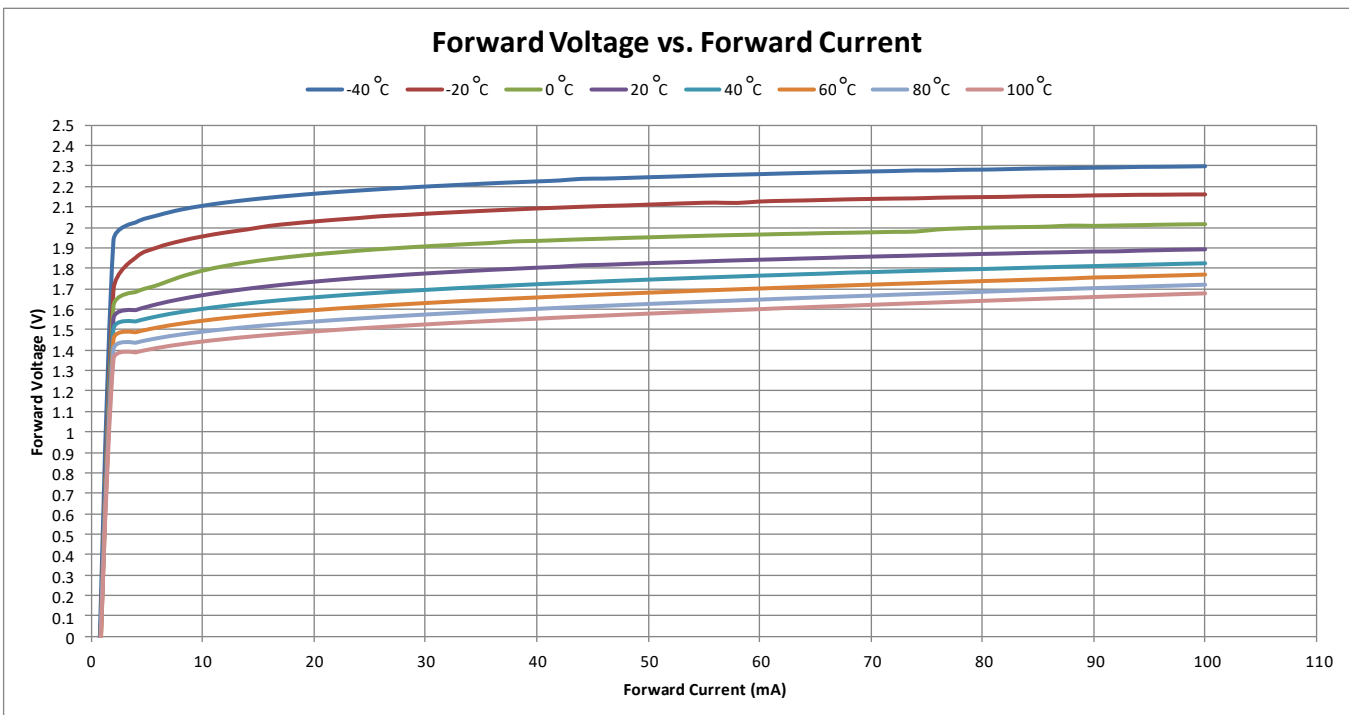
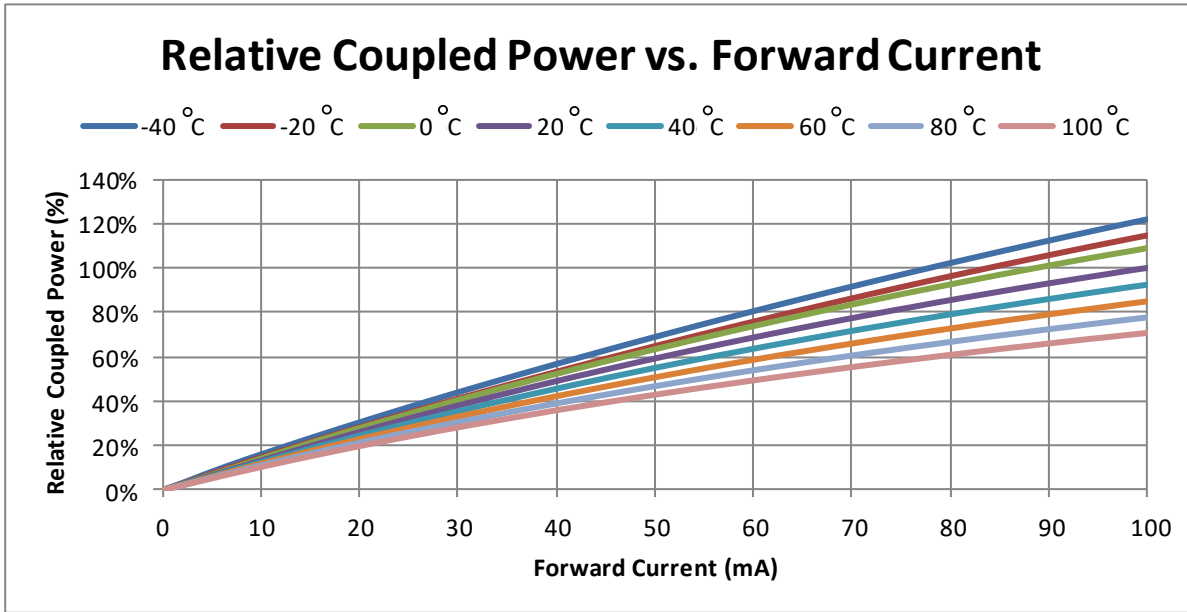
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Performance

OPF350A Graphs



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