

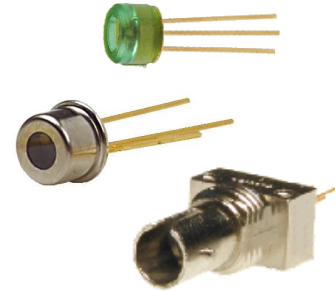
Fiber Optic Receiver

OPF500 Series



Features:

- Interfaces with all logic circuits
- Two output options
- Optimized for fiber optic applications using 50 to 200 micron fibers
- Data rate to 200kbps NRZ
- Available with multiple packaging options



Description:

The OPF500 series receiver contains a monolithic integrated circuit which incorporates a photodiode, linear amplifier, a voltage regulator, and a Schmitt trigger on a single silicon chip. These receivers are designed for short haul fiber optic systems using 850 nm LEDs such as Optek's OPF300 series.

These devices feature TTL/LSTTL compatible logic level output. An internal voltage regulator allows operation with supply voltages ranging from 4.5V to 16V.

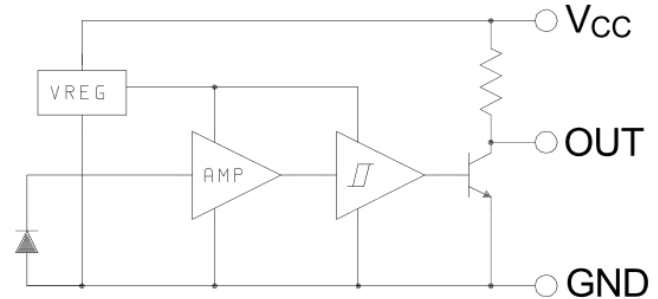
Applications:

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

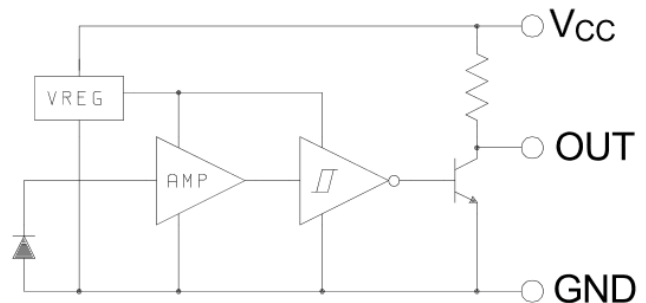
Part Ordering Information

| Part Number | Description |
|-------------|---|
| OPF500 | Buffer, 10kW Pull-Up Plastic Cap Component |
| OPF505 | Buffer, 10kW Pull-Up Metal Can Component |
| OPF507 | Buffer, 10kW Pull-Up Metal ST Receptacle |

Buffer/10K PU



Inverter/10K PU



This component is susceptible to damage from electrostatic discharge (ESD). Normal static precautions should be taken in handling and assembly of this component to prevent ESD damage or degradation.

General Note
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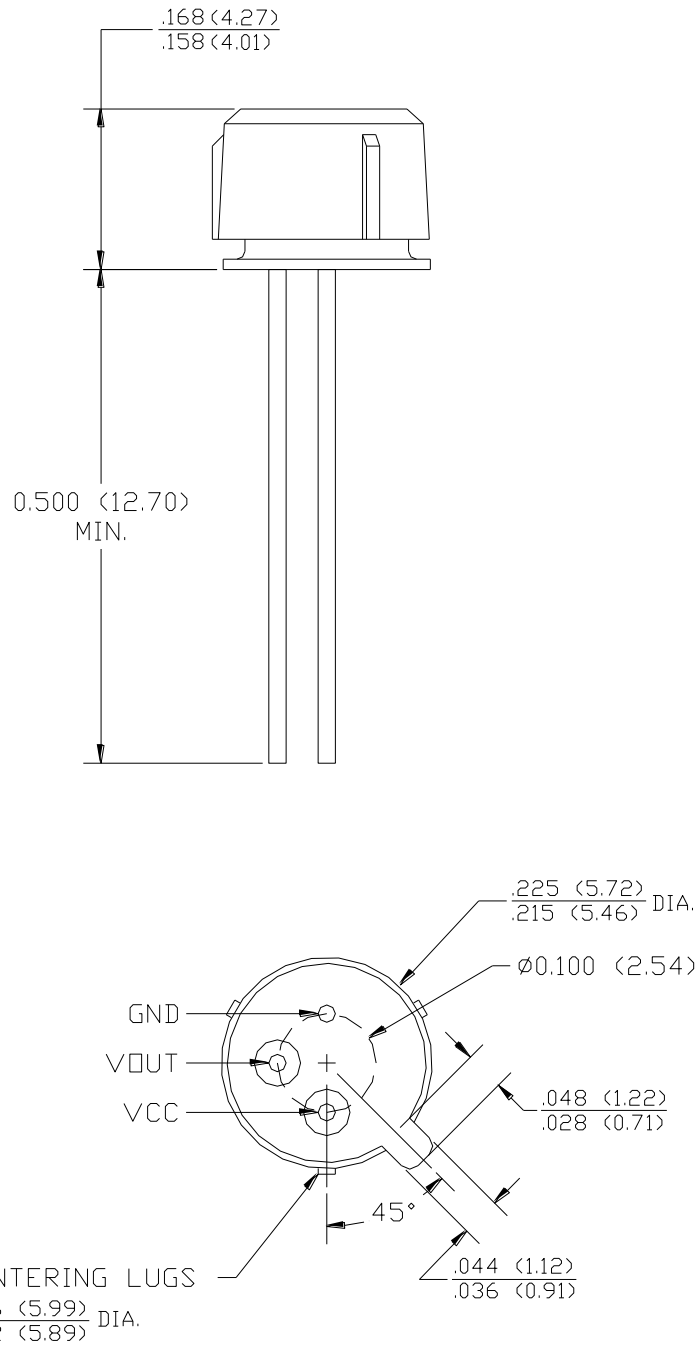
OPTEK Technology, Inc.
1645 Wallace Drive, Carrollton, TX 75006 | Ph: +1 972 323 2200
www.optekinc.com | www.ttelectronics.com

Fiber Optic Receiver

OPF500 Series



Mechanical Outline—OPF500



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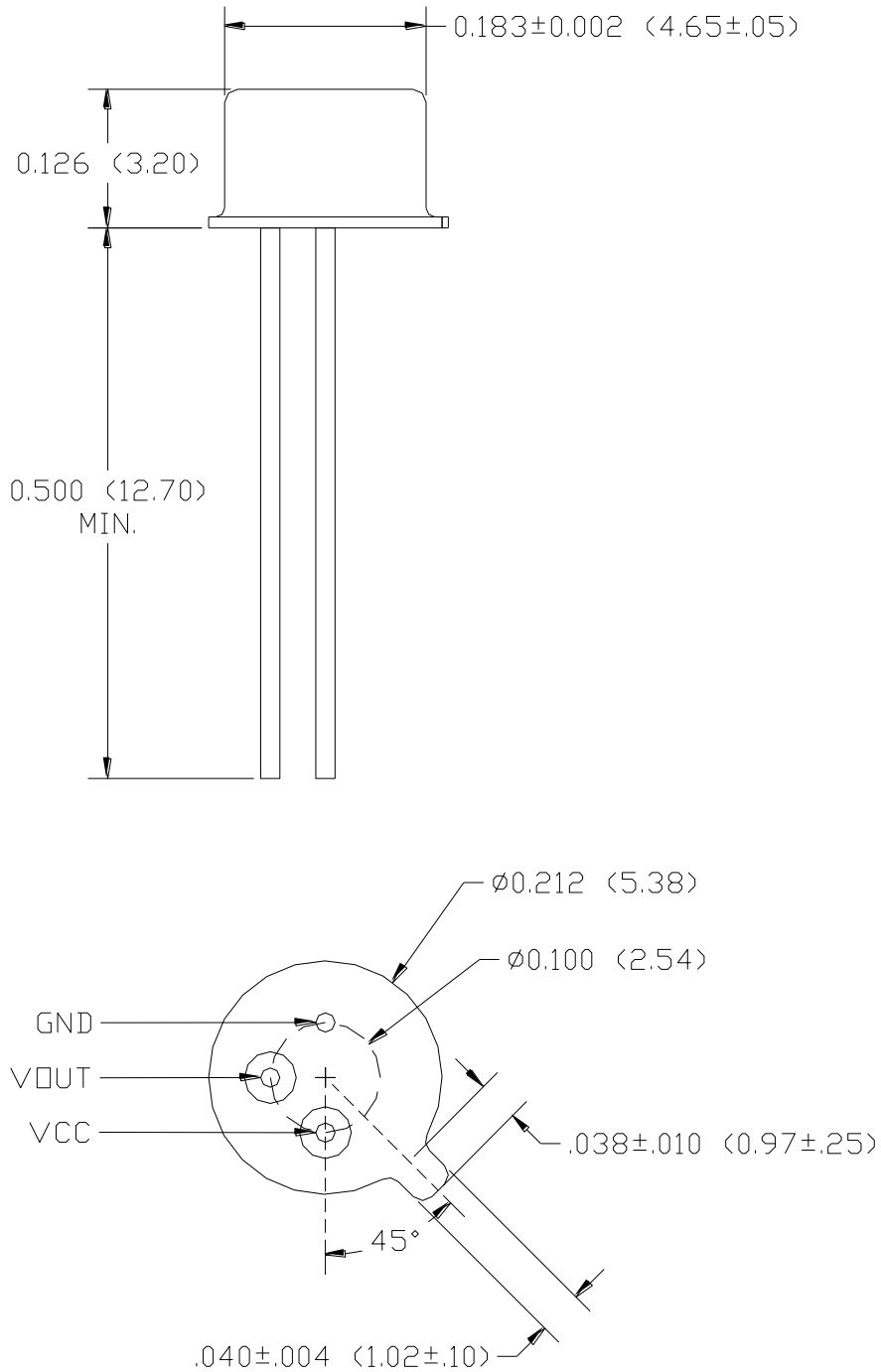
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Fiber Optic Receiver

OPF500 Series



Mechanical Outline—OPF505



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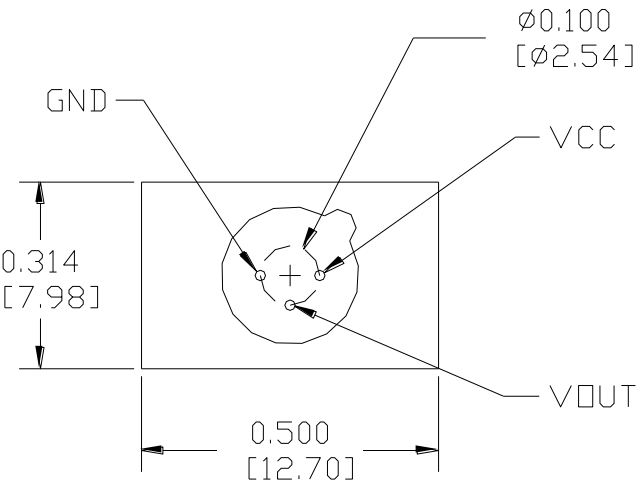
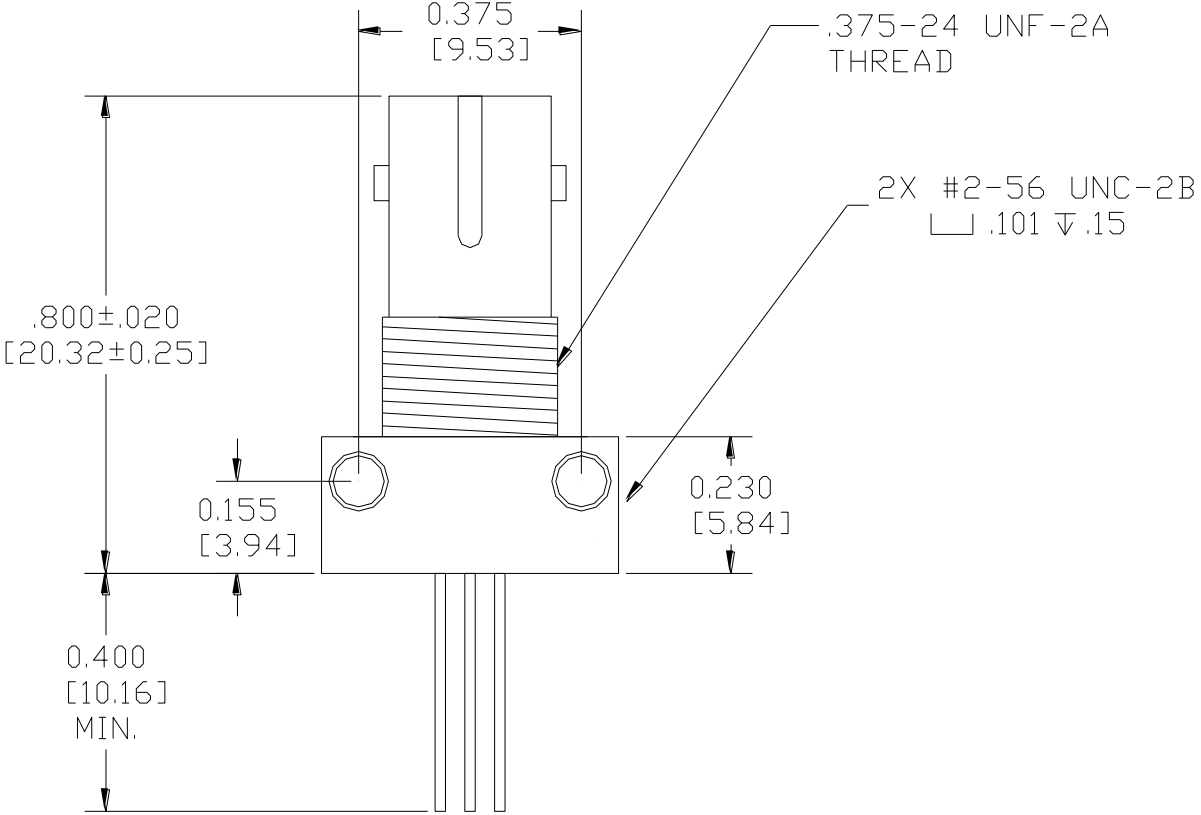
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Fiber Optic Receiver

OPF500 Series



Mechanical Outline—OPF507



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Electrical Specifications

| Absolute Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted) | |
|---|------------------|
| Storage Temperature | 65° C to +100° C |
| Operating Temperature | -40° C to +85° C |
| Lead Soldering Temperature (for 10 seconds) | 260° C |
| Supply Voltage | 18 V |
| Sinking Current | 16 mA |
| Power Dissipation | 200 mW |
| Open Collector Power Distribution | 40mW |
| Voltage at Output | 30 V |

| Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted) | | | | | | |
|---|---------------------------|----------------|----------|------------|---------------|---|
| SYMBOL | PARAMETER | MIN | TYP | MAX | UNITS | TEST CONDITIONS |
| V_{CC} | Supply Voltage | 4.5 | | 16.0 | V | |
| V_{OH} | High Level Output Voltage | $V_{CC} - 1.5$ | | | V | Buffer: $P_{IN} > 2.0\ \mu\text{W}$ Inverter: $P_{IN} < 0.1\ \mu\text{W}$ |
| V_{OL} | Low Level Output Voltage | | | 0.4 | V | Buffer: $P_{IN} < 0.1\ \mu\text{W}$ Inverter: $P_{IN} > 2.0\ \mu\text{W}$ |
| I_{CC} | Supply Current | | 5.0 | 12.0 | mA | No output load |
| P_{IN} | Input Sensitivity | | | 2.0 | μW | $\lambda_p = 850\ \text{nm}$ |
| t_r | Rise Time | | | 300 100 | ns | Buffer Inverter $P_{IN} = 1.5\ \mu\text{W}$ (peak) $V_{CC} = 5.0\ \text{V}$ |
| t_f | Fall Time | | | 300 100 | ns | Buffer Buffer |
| BW | Bandwidth | 100 | | | kHz | $P_{IN} > 2.0\ \mu\text{W}$, 50% duty cycle |
| PWD | Pulse Width Distortion | | ± 10 | | % | $1\ \mu\text{W} < P_{IN} < 100\ \mu\text{W}$, $f = 20\ \text{kHz}$ 50% duty cycle |

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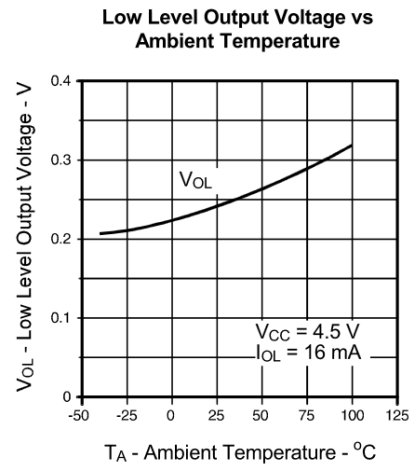
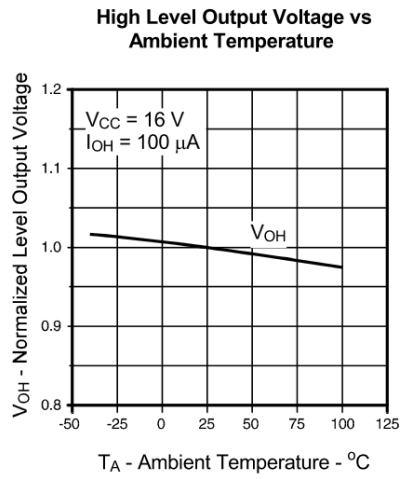
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Performance



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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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