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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!



Contact us

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OPF500 Series

Electronics

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
- Video surveillance systems

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
OPF510	Inverter, 10kW Pull-Up Plastic Cap Component
OPF512	Inverter, 10kW Pull-Up Metal ST Receptacle





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

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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OPF500 Series



Mechanical Outline—OPF500, OPF510



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OPF500 Series



Mechanical Outline—OPF505



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OPF500 Series



0.375 [9.53] .375-24 UNF-2A THREAD 2X #2-56 UNC-2B .800±.020 [20.32±0.25] 0.230 0.155 [5,84] [3.94] t I 0.400 [10.16] MIN, Ø0.100 $[\emptyset 2.54]$ GND -VCC 0.314 +[7,98] VOUT 0.500 [12,70]

Mechanical Outline-OPF507, OPF512

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OPF500 Series



Electrical Specifications

Absolute Maximum Ratings (T _A = 25° 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° C unless otherwise noted)

SYMBOL	PARAMETER	MIN	ТҮР	МАХ	UNITS	TEST CONDITIONS	
V _{cc}	Supply Voltage	4.5		16.0	V		
V _{OH}	High Level Output Voltage	VCC - 1.5			v	Buffer: P _{IN} > 2.0 μW Inverter: P _{IN} < 0.1 μW	
V _{OL}	Low Level Output Voltage			0.4	v	Buffer: $P_{IN} < 0.1 \mu W$ Inverter: $P_{IN} > 2.0 \mu W$	
I _{cc}	Supply Current		5.0	12.0	mA	No output load	
P _{IN}	Input Sensitivity			2.0	μW	λ _p = 850 nm	
tr	Rise Time			300 100	ns	Buffer Inverter	P _{IN} = 1.5 μW (peak)
t _f	Fall Time			300 100	ns	Buffer Buffer	V _{CC} = 5.0 V
BW	Bandwidth	100			kHz	P_{IN} > 2.0 μ W, 50% duty cycle	
PWD	Pulse Width Distortion		±10		%	1 μW < P _{IN} < 100 μW, <i>f</i> = 20 kHz 50% duty cycle	

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OPF500 Series



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Performance



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