

PRODUCT INFORMATION

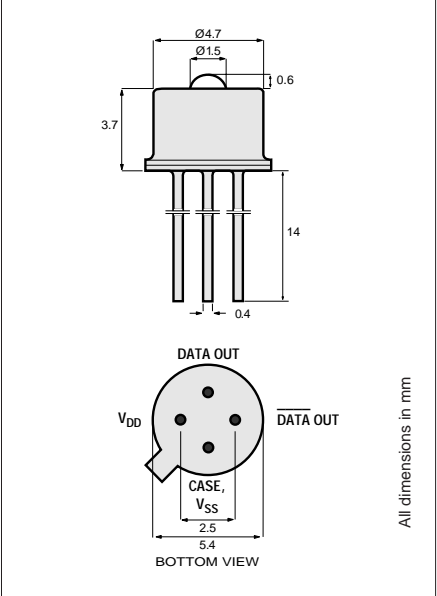
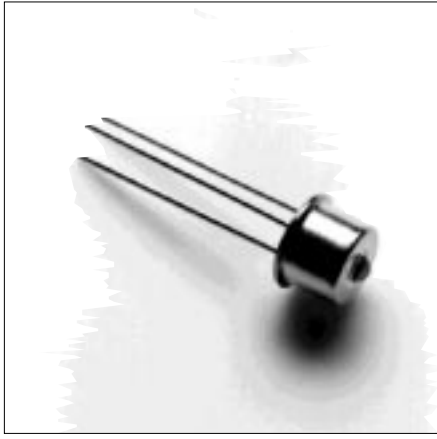
PRELIMINARY/β

1300nm
1550nm

8C447
PIN/Preamp

Datacom, General Purpose, Analog Applications

This device consists of a PIN photodiode and a transimpedance amplifier assembled in a TO-46 package. It is designed for short-distance FDDI and ATM up to 155 Mbps. The pre-amplifier's linearity and absence of automatic gain control makes it ideal also for analog applications and applications with bursty signals. Its double-lens optical system is designed for single-mode fiber as well as for multimode fiber with core diameter up to 62.5µm.



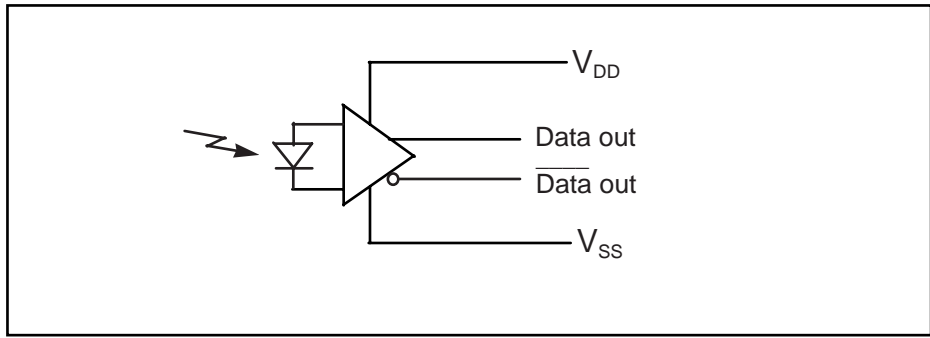
TO-46 Package With Lens

Optical and Electrical Characteristics (25° C Case Temperature)						
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Responsivity, single ended differential	R	5 10	8 16	12 24	kV/W	$\lambda=1300$ nm $P_f=10$ µW
Bandwidth (3dB _{el})	f_c	100	175		MHz	
Noise-Equivalent Power	NEP			35	nW	$\lambda=1300$ nm
Sensitivity (BER 10 ⁻⁹)	S		-35		dBm	$\lambda=1300$ nm Extinction Ratio=0
Dynamic Range			25		dB	
Output Resistance (differential)	R_O		50		Ω	
Power Supply Current	I_{DD}			35	mA	

Operating Conditions: See table below. Fiber: Single-mode to multimode 62.5/125µm.

Absolute Maximum Ratings				
PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Supply Voltage	$V_{DD}-V_{SS}$	0	6.0	V
Operating Temperature	T_{op}	-40	85	°C
Storage Temperature	T_{stg}	-55	125	°C

Recommended Operating Conditions					
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply Voltage	$V_{DD}-V_{SS}$	4.5	5.0	5.5	V
Output Differential Load	R_L	1	3		kΩ



Functional schematic

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