

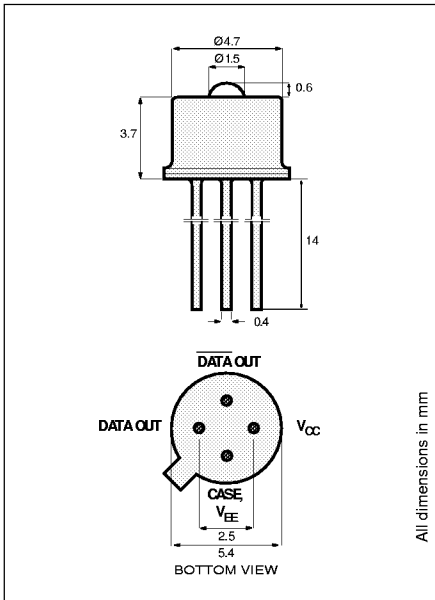
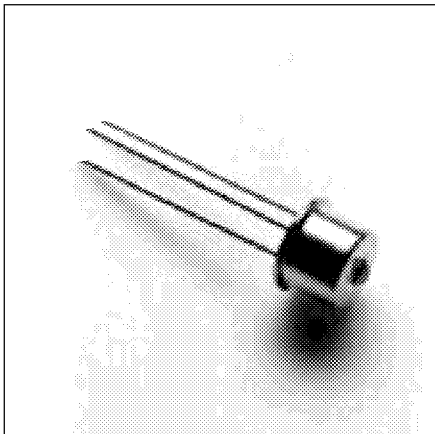
PRODUCT INFORMATION

1300nm
1550nm
8C480
PIN/Preamp

Datacom, Telecom

PRELIMINARY/β

This is a 3.3V device which contains an InGaAs PIN photodiode and a transimpedance amplifier assembled in a TO-46 package. It is designed for ATM and SDH/Sonet 622 Mbps. A DC cancellation circuit ensures a wide dynamic range. 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 differential	R	1.7 3.4	2.4 4.8	3.2 6.4	kV/W	$\lambda=1300$ nm Note 1
Output Voltage (single)	V_O			950	mV	
Bandwidth (3dB _{e1})	f_c		590		MHz	
Noise-Equivalent Power	NEP		90	115	nW	$\lambda=1300$ nm
Sensitivity (BER 10^{-9})	S		-32	-31	dBm	$\lambda=1300$ nm Extinction Ratio=0
Dynamic Range			24		dB	
Output Resistance (single)	R_O	40	60	75	Ω	
Power Supply Current	I_{DD}	12	25	35	mA	

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

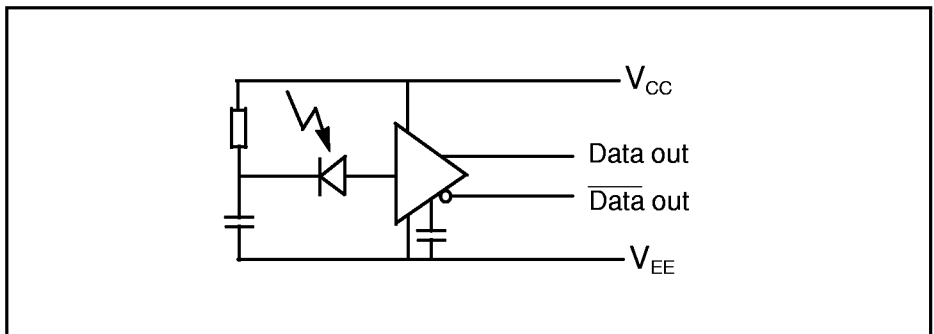
Note 1: $P_f=5 \mu W$ average power at 10MHz/50% duty cycle.

Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Supply Voltage	$V_{CC}-V_{EE}$	-0.5	5.5	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	$V_{CC}-V_{EE}$	3.0	3.3	3.6	V
Output Differential Load	R_L		100		Ω



Functional schematic

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