

# PRODUCT INFORMATION

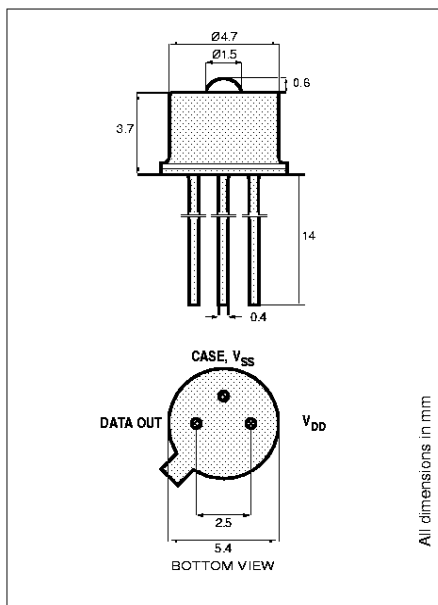
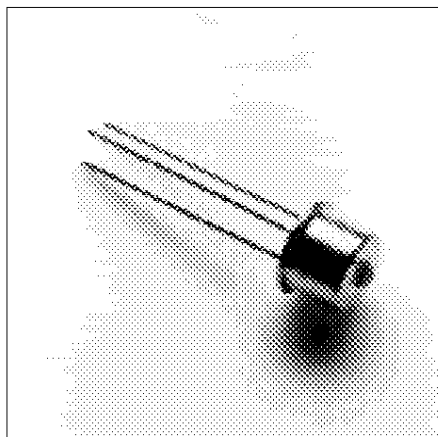
850nm

**8E397**  
PIN/Preamp

Datacom

PRELIMINARY/B

This device consists of a PIN photodiode and a transimpedance amplifier assembled in a TO-46 package. It is designed for Fibre Channel, Gigabit Ethernet and other VCSEL-based applications. 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	$R$	600	1000	1500	V/W	$\lambda=850\text{ nm}$ $P_f=10\ \mu\text{W}$
Bandwidth (3dB <sub>el</sub> )	$f_c$		1		GHz	
Noise-Equivalent Power	$NEP$			600	nW	$\lambda=850\text{ nm}$
Sensitivity (BER 10 <sup>-9</sup> )	$S$		-25		dBm	$\lambda=850\text{ nm}$ Extinction Ratio=0
Dynamic Range			25		dB	
Output Resistance	$R_O$		3		$\Omega$	
Power Supply Current	$I_{DD}$		56	70	mA	

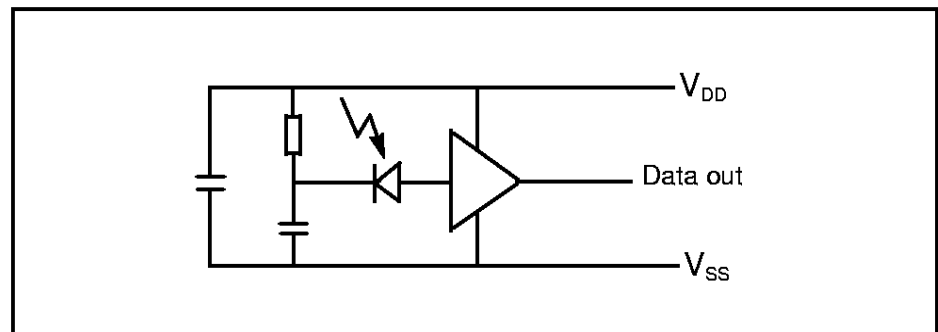
Operating Conditions: See table below. Fiber: Single-mode to multimode 62.5/125µm.

## 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	$V_{DD}-V_{SS}$	4.75	5.0	5.25	V
Output DC Load	$R_L$		50		$\Omega$



Functional schematic

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