

TMC-1C46-000

622Mbps, InGaAs PIN plus Pre-amplifier

FEATURES:

- Industry standard TO-46 package with cap lens.
- Optimized for fiber optic application.
- Suitable for long wavelength 622Mbps SDH/SONET applications.



ELECTRO-OPTICAL CHARACTERISTICS:

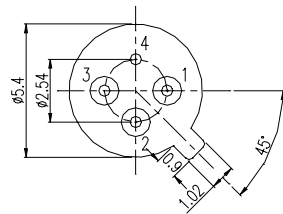
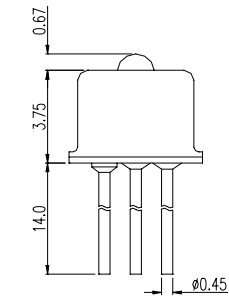
PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Power Supply	V_{CC}	3.0		5.5	V	
Supply Current	I_{CC}		21	40	mA	no loads
Differential Responsivity	R_d	5	7	8	mV/ μ W	$R_{load} = 100 \text{ ohm}$, $P = -20 \text{ dBm @ } 50 \text{ MHz}$, 1310nm
Single Ended Responsivity	R_s	2.5	3.5	4	mV/ μ W	$R_{load} = 50 \text{ ohm}$, $P = -20 \text{ dBm @ } 50 \text{ MHz}$, 1310nm
Optical Overload		-8			dBm	
Small-Signal Bandwidth	BW	404	470		MHz	
Low-Frequency Cut off	LF		20		kHz	
Single Ended Output Impedance	R_O	48	50	52	ohm	
RMS Input Referred Noise			70	90	nW	
Maximum Differential Output Voltage			260	450	mV p-p	$P = -8 \text{ dBm}$
Power Supply Rejection Ratio	PSRR		45		dB	
Wavelength	λ	1270		1380	nm	
Sensitivity			-31	-28	dBm	Input optical signal $\lambda = 1310\text{nm}$, Data rate = 622Mbps, BER = 10^{-9}

ABSOLUTE MAXIMUM RATINGS:

PARAMETERS	MIN	MAX	UNIT	CONDITIONS
Storage Temperature	-40	100	$^{\circ}\text{C}$	
Operating Temperature	-40	85	$^{\circ}\text{C}$	
Lead Solder Temperature		260	$^{\circ}\text{C}$	10 seconds

OUTLINE DIMENSIONS:

UNIT:mm



Pinout

1. Dout
2. $\overline{\text{Dout}}$
3. Vcc
4. Gnd