

TMC-1C43

2 GHz InGaAs PIN plus Pre-amplifier

FEATURES:

- Industry standard TO-46 package with cap lens.
- Optimized for fiber optic application.
- Suitable for long wavelength 2.5 Gbps applications.



ELECTRO-OPTICAL CHARACTERISTICS:

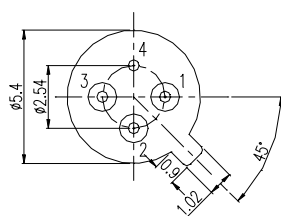
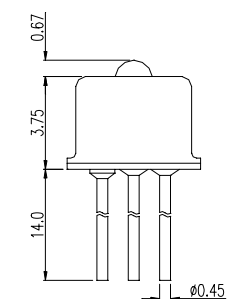
PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Power Supply	V_{CC}	3.0		5.5	V	
Supply Current	I_{CC}		26	50	mA	no loads
Differential Responsivity	R_d	1.3	1.6	1.9	mV/ μ W	$R_{load} = 100 \text{ ohm}$, $P = -15 \text{ dBm @ } 50 \text{ MHz}$, 1310nm
Single Ended Responsivity	R_s	0.6	0.8	0.9	mV/ μ W	$R_{load} = 50 \text{ ohm}$, $P = -15 \text{ dBm @ } 50 \text{ MHz}$, 1310nm
Small-Signal Bandwidth	BW	1500	1900	2100	MHz	
Low-Frequency Cut off	LF		44		kHz	
Rise Time/Fall Time	t_r/t_f		300	400	ps	20 % ~ 80 %
Single Ended Output Impedance	R_O	48	50	52	ohm	
RMS Input Referred Noise			500	650	nW	
Maximum Differential Output Voltage		185	250	415	mV p-p	$P = 0 \text{ dBm}$
Power Supply Rejection Ratio	PSRR		50		dB	
Wavelength	λ	1270		1380	nm	

ABSOLUTE MAXIMUM RATINGS:

PARAMETERS	MIN	MAX	UNIT	CONDITIONS
Storage Temperature	-40	100	$^{\circ}\text{C}$	
Operating Temperature	-20	85	$^{\circ}\text{C}$	
Lead Solder Temperature		260	$^{\circ}\text{C}$	10 seconds

OUTLINE DIMENSIONS:

UNIT:mm



Pinout

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