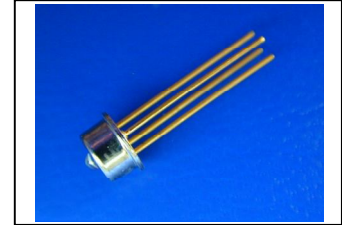


TMC-1C43-418

2.5Gbps InGaAs PIN plus AGC Pre-amplifier

FEATURES:

- ; Industry standard TO-46 package with short cap lens and tab-less.
- ; Optimized for fiber optic application.
- ; Design for long wavelength 2.5Gbps application.
- ; Single power supply +3.3V.



ELECTRO-OPTICAL CHARACTERISTICS: (Typical values are at +3.3V@ 25°C):

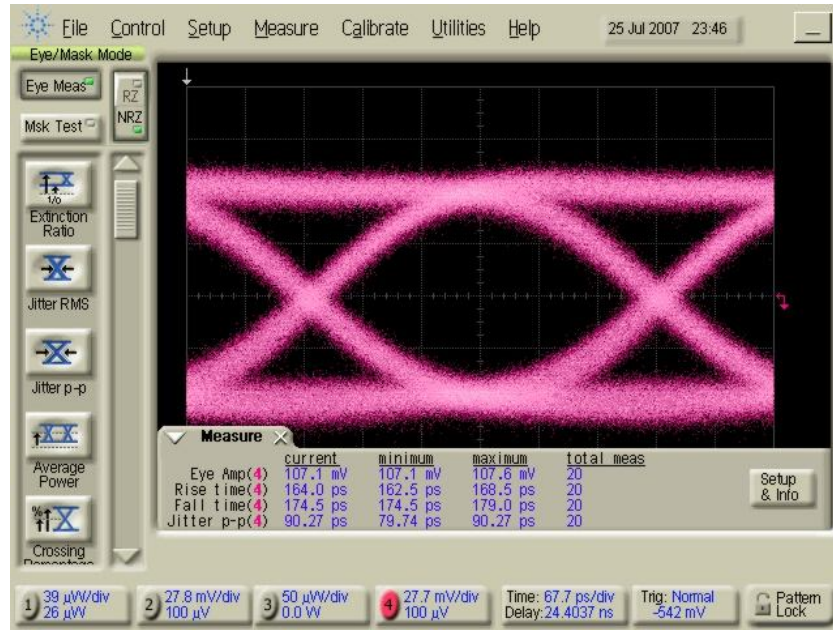
PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Power Supply	V _{CC}	3.0	3.3	3.6	V	
Supply Current	I _{CC}		48	60	mA	no loads
Differential Responsivity	R _d	14		30	mV/μW	R _{load} = 100ohm, P = -23dBm, λ=1310nm
Single Ended Responsivity	R _s	7		15	mV/μW	R _{load} = 50ohm, P = -23dBm, λ=1310nm
Small-Signal Bandwidth	BW	1.4			GHz	
Low-Frequency Cut-off	LF		80		kHz	
Rise / Fall Time(20 % ~ 80 %)	tr/tf		170	200	ps	P = -23dBm, λ=1310nm
Saturation Power	P _{Sat}	0			dBm	
Single Ended Output Impedance	R _O		50		ohm	
Wavelength	λ	1260		1620	nm	
Sensitivity				-25	dBm	λ=1310nm,@2488.32Mbps, PRBS23,ER=10dB,BER=1E-10

ABSOLUTE MAXIMUM RATINGS:

PARAMETERS	MIN	MAX	UNIT	TEST CONDITIONS
Storage Temperature	-40	100	°C	
Operating Temperature	-40	85	°C	
Lead Solder Temperature		260	°C	10 seconds

Eye Diagram:

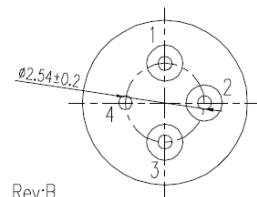
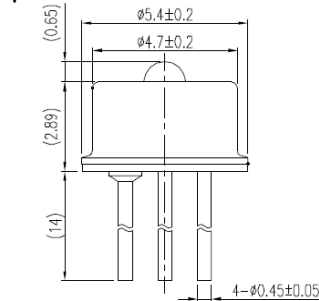
$R_{load} = 50\Omega$, $P = -23\text{dBm}@2488.32\text{Mbps}$, 1310nm, PRBS 23.



$t_r=164.0\text{ps}$, $t_f=174.5\text{ps}$, Jitter p-p= 90.27ps

OUTLINE DIMENSIONS:

Unit: mm



Rev:B

Pinout: A-4

- 1. Vcc
- 2. Dout
- 3. Dout
- 4. Gnd