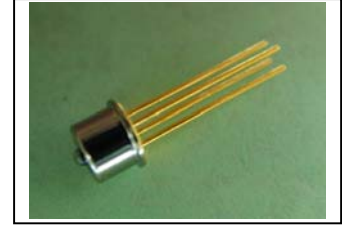


TMC-8D43-701

2.5Gbps GaAs PIN plus Pre-amplifier

FEATURES:

- Industry standard TO-46 package with cap lens.
- Optimized for fiber optic application.
- Suitable to 2.5Gbps applications.
- Single power supply +3.3V.



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

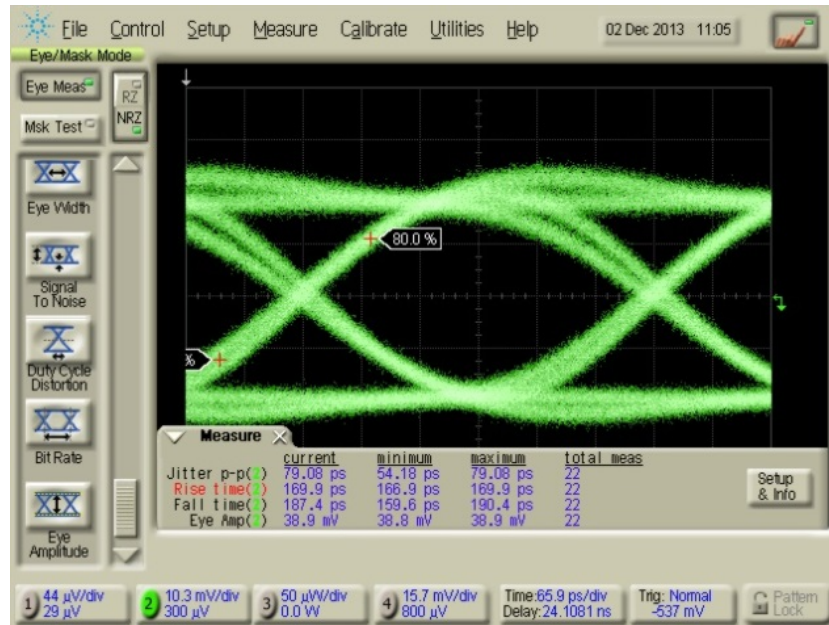
PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Power Supply	V_{CC}	3.0	3.3	3.6	V	
Supply Current	I_{CC}	15	20	24	mA	no loads
Differential Responsivity	R_d		3.6		mV/ μ W	$R_{load} = 100\text{ohm}$, $P = -20\text{dBm}$, $\lambda = 850\text{nm}$
Single Ended Responsivity	R_s		1.8		mV/ μ W	$R_{load} = 50\text{ohm}$, $P = -20\text{dBm}$, $\lambda = 850\text{nm}$
Small-Signal Bandwidth	BW		1.5		GHz	$P = -20\text{dBm}$
Low-Frequency Cut off	LF		30		kHz	
Rise / Fall Time(20 % ~ 80 %)	tr/tf			200	ps	$P = -20\text{dBm}$, $\lambda = 850\text{nm}$
Saturation Power	P_{Sat}	0			dBm	
Maximum Differential Output Voltage			140	270	mVp-p	$R_{load} = 100\text{ohm}$, $P = -15\text{dBm}$, $\lambda = 850\text{nm}$
Single Ended Output Impedance	R_O		50		ohm	
Wavelength	λ	770		860	nm	
Sensitivity				-23	dBm	$\lambda = 850\text{nm}$, @2488.32Mbps, PRBS7, 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 :

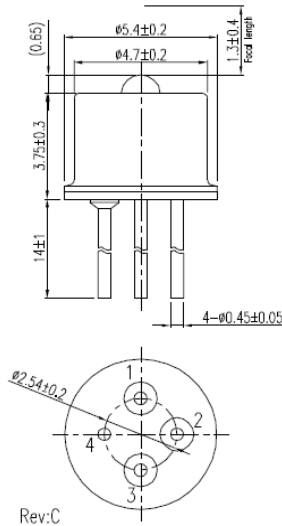
$R_{load} = 50\Omega$, $P = -20\text{dBm}@2488.32\text{Mbps}$, 850nm , PRBS 7.



$t_r = 169.9\text{ps}$, $t_f = 187.4\text{ps}$, Jitter p-p = 79.08ps

OUTLINE DIMENSIONS:

• Unit: mm

**Pinout: C-4**

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