

TMC-8D43-640

2.5Gbps GaAs PIN plus Pre-amplifier

FEATURES:

- Industry standard TO-46 package with cap lens.
- Optimized for fiber optic application.
- Suitable to run 1.0625 Gbps to 2.5 Gbps applications.
- Single power supply +3.3 Volt.



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

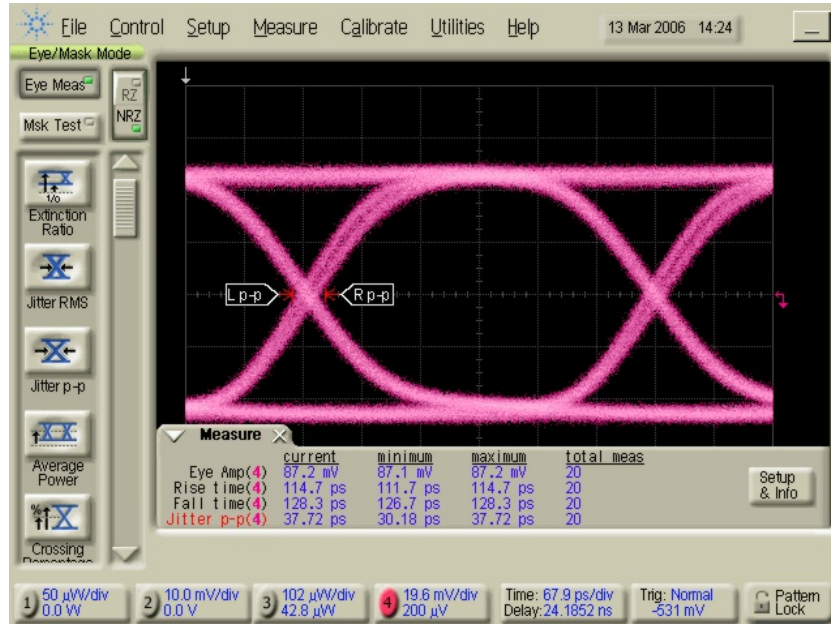
PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Power Supply	V _{CC}	3.0	3.3	3.6	V	
Supply Current	I _{CC}		25	35	mA	no loads
Differential Responsivity	R _d	1.8	2.6	3.8	mV/μW	R _{load} =100 ohm, P = -15 dBm, λ=850 nm
Single Ended Responsivity	R _s	0.9	1.3	1.9	mV/μW	R _{load} =50 ohm, P = -15 dBm, λ=850 nm
Saturation Power		0			dBm	
Small-Signal Bandwidth	BW	1.6			GHz	P = -15 dBm
Low-Frequency Cut off	LF			100	kHz	
Rise / Fall Time(20 % ~ 80 %)	tr/tf		115	200	ps	P = -15 dBm, λ=850 nm
Single Ended Output Impedance	R _O		50		ohm	
Maximum Differential Output Voltage		200	280		mV p-p	R _{load} =100ohm, P > -7 dBm, λ=850 nm
Wavelength	λ	770		860	nm	
Sensitivity				-21	dBm	λ=850nm, @2488.32Mbps SER=10dB, BER=1E-10, PRBS7

ABSOLUTE MAXIMUM RATINGS:

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

Eye Diagram:

$R_{load} = 50 \text{ ohm}$, $P = -15 \text{ dBm @ } 2488.32 \text{ Mbps}$, 850nm, PRBS 7,



$t_r = 114.7\text{ps}$, $t_f = 128.3\text{ps}$, Jitter p-p = 37.72ps

OUTLINE DIMENSIONS:

• Unit: mm

