

TMC-8D52-201

1.25Gbps GaAs PIN plus AGC Pre-amplifier

FEATURES:

- ; Industry standard TO-46 package with cap lens.
- ; Optimized for fiber optic application.
- ; Design for short wavelength 1.25Gbps application.
- ; Photocurrent monitoring available.
- ; Single power supply +3.3V.



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

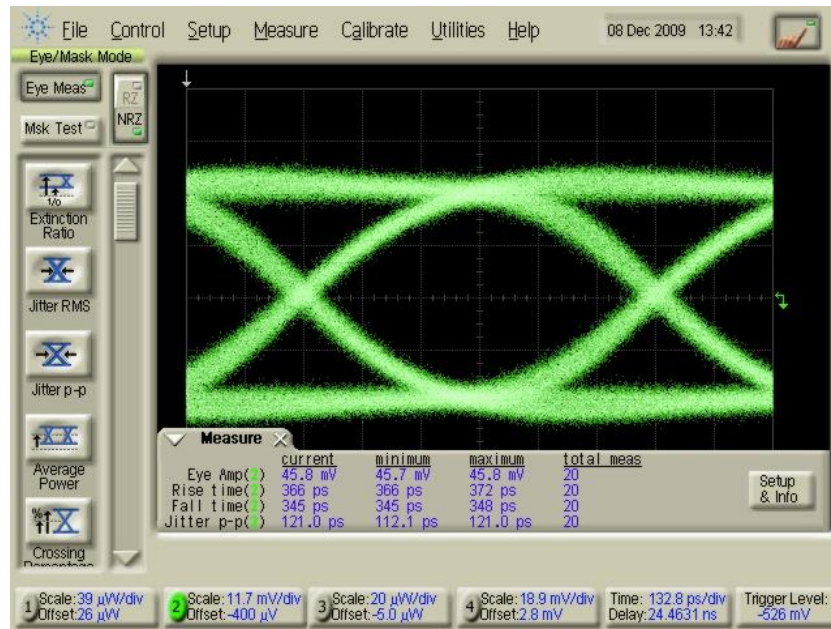
PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Power Supply	V _{CC}	3.0	3.3	3.6	V	
Supply Current	I _{CC}		22	30	mA	no loads
Differential Responsivity	R _d	7.6		17.8	mV/μW	R _{load} = 100ohm, P = -24dBm, λ=850nm
Single Ended Responsivity	R _s	3.8		8.9	mV/μW	R _{load} = 50ohm, P = -24dBm, λ=850nm
Small-Signal Bandwidth	BW	700			MHz	
Low-Frequency Cut off	LF			100	kHz	
Rise / Fall Time(20 % ~ 80 %)	tr/tf			400	ps	P = -24dBm, T _A =25°C
Saturation Power	P _{Sat}	0			dBm	
Single Ended Output Impedance	R _O		50		ohm	
Wavelength	λ	770		860	nm	
Sensitivity				-26	dBm	λ=850nm, @1244.16Mbps, 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 :

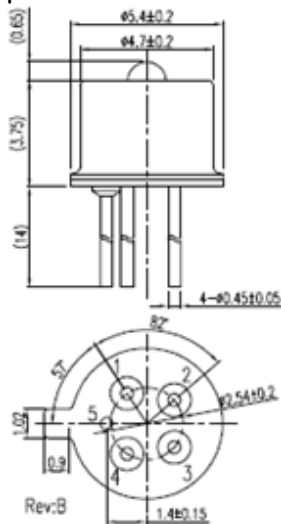
$R_{load} = 50\Omega$, $P = -24\text{dBm}@1244.16\text{Mbps}$, 850nm , PRBS 7.



$t_r=366\text{ps}$, $t_f=345\text{ps}$, Jitter p-p=121.0ps

OUTLINE DIMENSIONS:

j Unit: mm



Pinout: D-5 (Mpd, Isource)

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