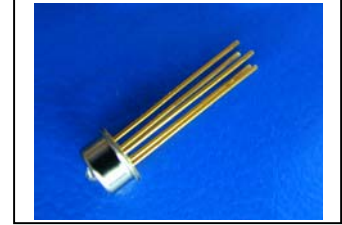


TMC-1C53-768

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 to 4.25G application.
- Photocurrent monitoring available.
- Single power supply +3.3V.



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

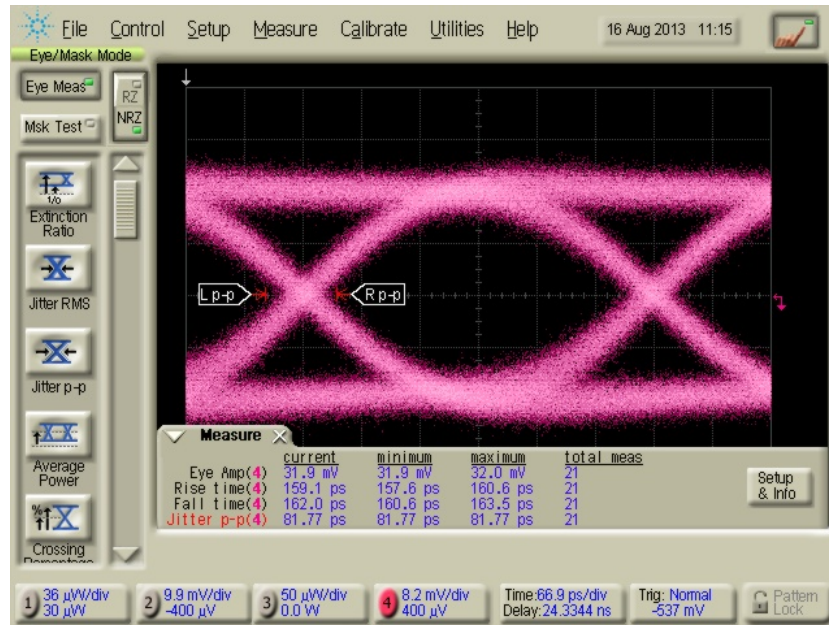
PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Power Supply	V _{CC}	3.0	3.3	3.6	V	
Supply Current	I _{CC}	30	34	42	mA	no loads
Differential Responsivity	R _d	10	16	26	mV/μW	R _{load} = 100ohm, P = -27dBm, λ=1490nm
Single Ended Responsivity	R _s	5	8	13	mV/μW	R _{load} = 50ohm, P = -27dBm, λ=1490nm
Small-Signal Bandwidth	BW	1.4			GHz	
Low-Frequency Cut off	LF		15	25	kHz	
Rise / Fall Time(20 % ~ 80 %)	tr/tf			200	ps	P = -27dBm, λ=1490nm
Saturation Power	P _{Sat}	0	3		dBm	
Single Ended Output Impedance	R _O		50		ohm	
Wavelength	λ	1260		1620	nm	
Sensitivity				-28	dBm	@2.5Gbps λ=1490nm, PRBS23,ER=10dB, BER=1E-10
				-23		@4.25Gbps λ=1310nm, PRBS7,ER=7dB, 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 :

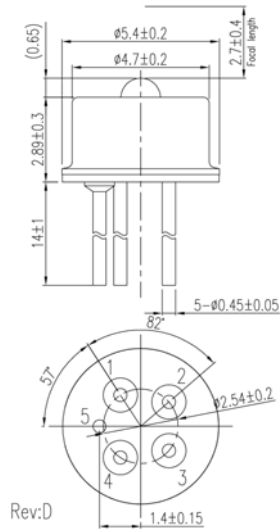
$R_{load} = 50\Omega$, $P = -27\text{dBm}@2488.32\text{Mbps}$, 1490nm , PRBS 23.



$t_r=159.1\text{ps}$, $t_f=162.0\text{ps}$, Jitter p-p=81.77ps

OUTLINE DIMENSIONS:

- Unit: mm



Pinout: D-5 (Mpd, Isource)

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