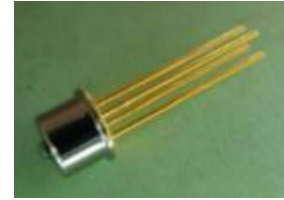




Model No. PDT-A85P4-2GA3
2.5Gbps 850nm GaAs PIN plus Pre-amplifier Photodiode in TO-46 Package

FEATURES

- 850nm GaAs PIN TIA 4 pin TO
- Industry standard TO-46 package with cap lens
- Optimized for fiber optic application
- Suitable for 2.5Gbps applications
- Single power supply from +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/uW	$\lambda = 850\text{nm}$, $R_{load}=100\text{ohm}$, $P = -20\text{dBm}$
SINGLE ENDED RESPONSIVITY	R_s		1.8		mV/uW	$\lambda = 850\text{nm}$, $R_{load}=50\text{ohm}$, $P = -20\text{dBm}$
SMALL-SIGNAL BANDWIDTH	BW		1.5		GHz	$P = -20\text{dBm}$
LOW-FREQUENCY CUT OFF	LF		30		kHz	
RISE/FALL TIME (20-80%)	t_r/t_f			200	ps	$P = -20\text{dBm}$, $\lambda = 850\text{nm}$
SATURATION POWER	P_{sat}	0			dBm	
MAXIMUM DIFFERENTIAL OUTPUT VOLTAGE			140	270	mVp-p	$\lambda = 850\text{nm}$, $R_{load}=100\text{ohm}$, $P = -15\text{dBm}$
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=10 ⁻¹⁰

ABSOLUTE MAXIMUM RATINGS

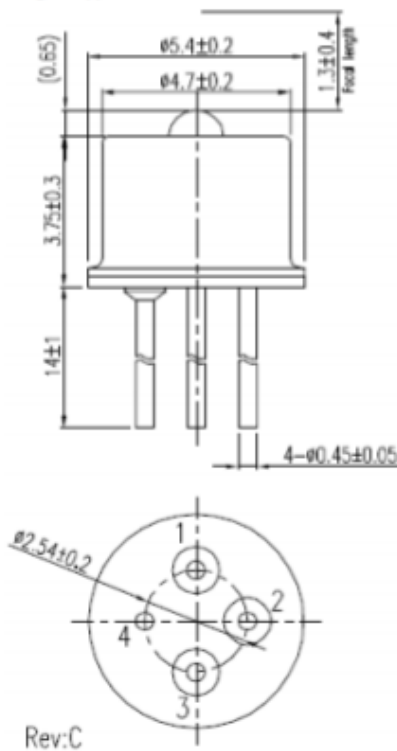
PARAMETERS	MIN.	MAX.	UNIT	CONDITIONS
STORAGE TEMPERATURE	-40	100	°C	
OPERATING TEMPERATURE	-40	85	°C	
LEAD SOLDER TEMPERATURE		260	°C	10 seconds

Note: The above specifications are subject to change without notice.





OUTLINE DIMENSIONS (unit: mm)

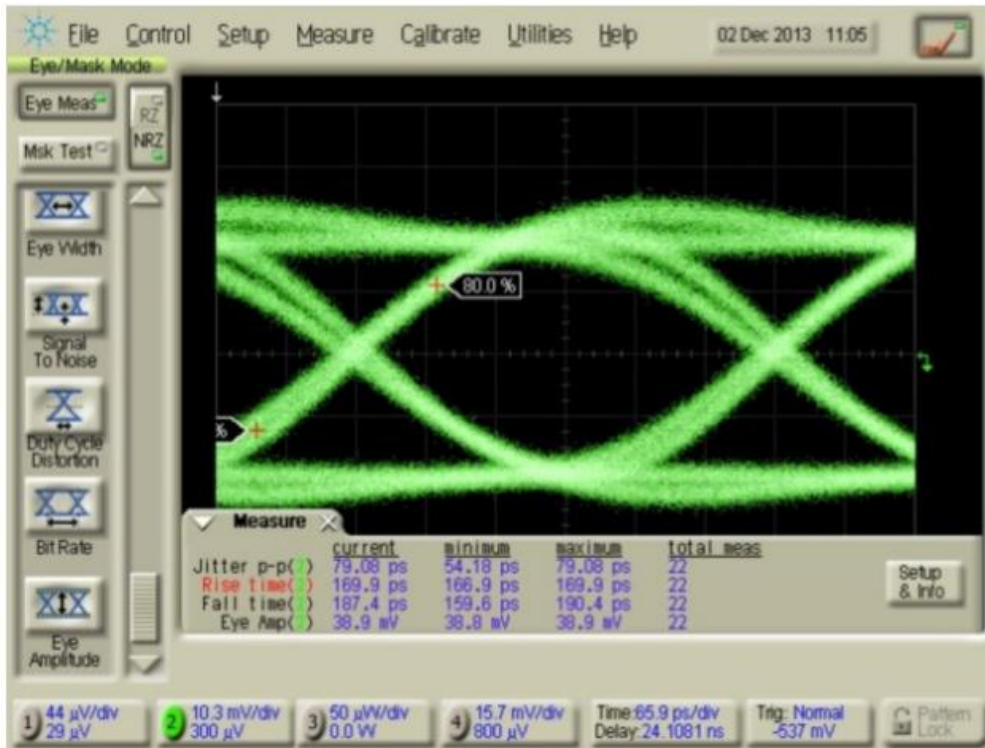


Pinout:

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

EYE DIAGRAM

R_{load} = 50ohm, P = -20dBm @2488.32Mbps, 850nm, PRBS7.



tr = 169.9ps, tf = 187.4ps, Jitter p-p = 79.08ps

Note: The above specifications are subject to change without notice.

