



## 1.25Gbps 850nm GaAs PIN plus AGC Pre-amplifier Photodiode in TO-46 Package, 4-pin

Part No. PDT-A85P4-1GA3

### Features

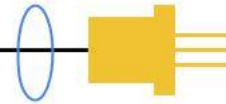
- 850nm GaAs PIN TIA 4 pin TO
- Industry standard TO-46 package with cap lens
- Optimized for fiber optic application
- Design for short wavelength 1.25Gbps applications
- Single power supply from +3.3V



### Specifications

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

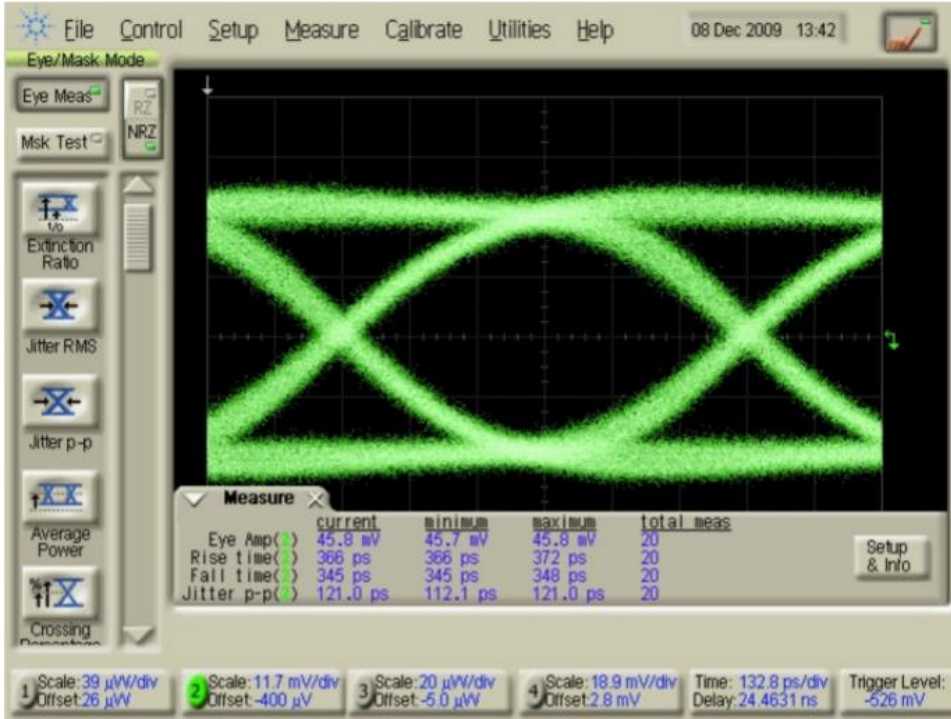
Electro-Optical Characteristics (Typical values are at + 3.3V@25°C)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Power supply	V <sub>cc</sub>	3.0	3.3	3.6	V	
Supply current	I <sub>cc</sub>		22	30	mA	No loads
Differential responsivity	R <sub>d</sub>	7.6		17.8	mV/uW	λ=850nm, R <sub>load</sub> =100ohm, P=-24dBm
Single ended responsivity	R <sub>s</sub>	3.8		8.9	mV/uW	λ=850nm, R <sub>load</sub> =50ohm, P=-24dBm
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 <sub>A</sub> =25°C
Saturation power	P <sub>sat</sub>	0			dBm	
Single ended output impedance	R <sub>o</sub>		50		ohm	
Wavelength	λ	770		860	nm	
Sensitivity				-26	dBm	λ=850nm, @1244.16Mbps, PRBS7, ER=10dB, BER=10 <sup>-10</sup>



## Typical Characteristics

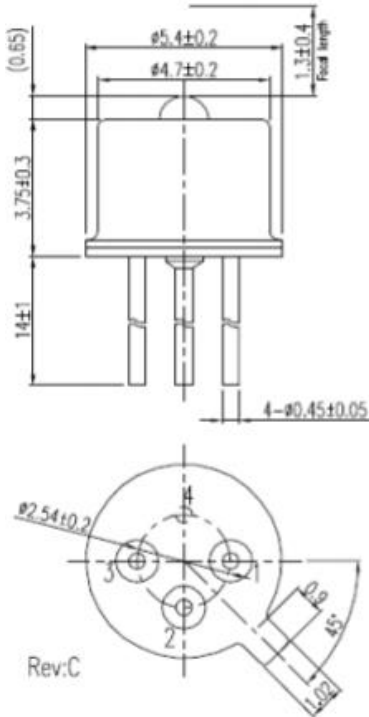
### Eye Diagram

R<sub>load</sub> = 50ohm, P = -24dBm @ 1244.16Mbps, 850nm, PRBS7.



tr = 366ps, tf = 345ps, Jitter p-p = 121.0ps

### Outline Dimensions (unit: mm)



### Pinout:

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

Note: Specifications are subject to change without notice.

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