



## 1.25Gbps 1260nm~1620nm InGaAs PIN plus AGC Pre-Amplifier Photodiode in TO-46 Package, 5-pin

Part No. PDT-A13P5-1GB3

### Features

- 1310nm/1550nm InGaAs PINTIA 5 pin TO
- Industry standard TO-46 package with short cap lens and tab-less
- Optimized for fiber optic application
- Design for long wavelength 1.25Gbps applications
- Photocurrent monitoring available
- Single power supply +3.3V

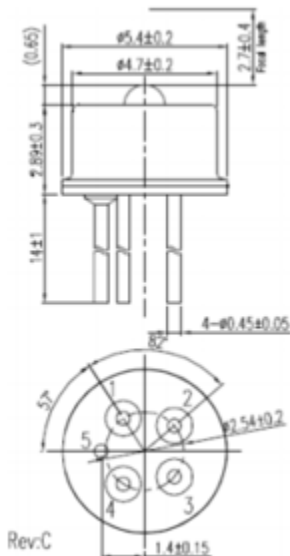


### Specifications

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>	14		30	mV/uW	λ=1310nm, R <sub>load</sub> =100ohm, P=-26dBm
Single Ended Responsivity	R <sub>s</sub>	7		15	mV/uW	λ=1310nm, R <sub>load</sub> =50ohm, P=-26dBm
Small-Signal Bandwidth	BW	700			MHz	
Low-Frequency Cut Off	LF			100	kHz	
Rise/Fall Time (20-80%)	tr/tf			400	ps	P=-26dBm, 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	1260		1620	nm	
Sensitivity				-28	dBm	λ=1310nm, @1244.16Mbps, PRBS7, ER=10dB, BER=10 <sup>-10</sup>

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	

### Outline Dimensions (unit: mm)

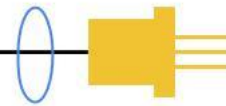


- Pinout:**
1. Dout
  2. Vcc
  3. Isource
  4. Dout
  5. Gnd

**Lasermate Group, Inc.**

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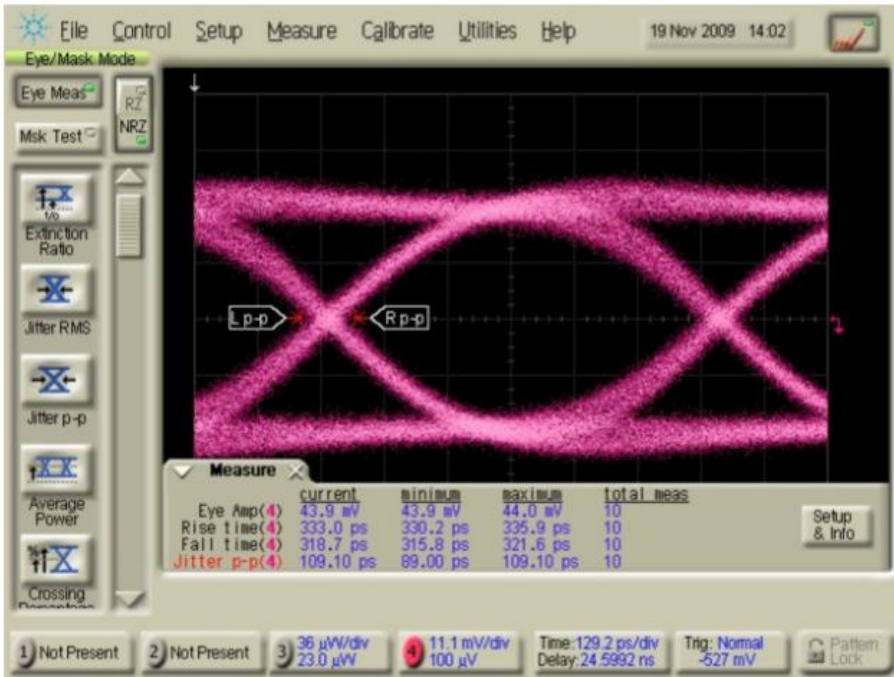
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## Typical Characteristics

### Eye Diagram

$R_{load} = 50\Omega$ ,  $P = -26\text{dBm}$ @1244.16Mbps, 1310nm, PRBS 7



$t_r=333.0\text{ps}$ ,  $t_f=318.7\text{ps}$ , Jitter p-p=109.1ps

Note: Specifications are subject to change without notice.