

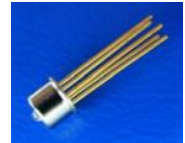


PDT-A13P5-6GA3

6.25Gbps InGaAs PIN plus AGC Pre-Amplifier Photodiode in TO-46 Package, 5-pin

Overview

The Lasermate PDT-A13P5-6GA3 is a high-speed, high sensitivity 6.25Gb/s InGaAs photodetector integrated with a transimpedance amplifier (TIA) in a 5-pin TO-46 package with long cap lens, specifically designed for 1310nm/1550nm band optical fiber communications.



Features

- 1310nm/1550nm InGaAs PINTIA 5 pin TO
- Industry standard TO-46 package with long cap lens and tab-less
- Photocurrent monitoring available
- Single power supply +3.3V

Applications

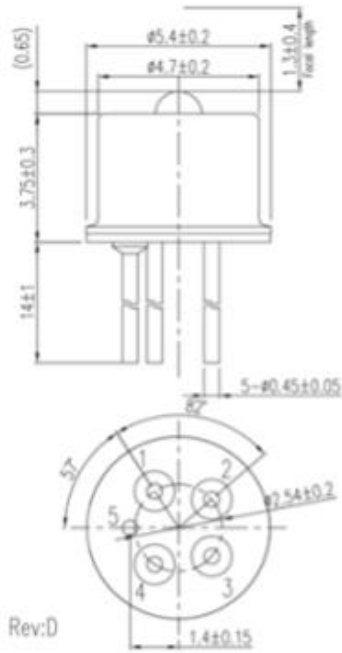
- Optimized for fiber optic application
- Design for long wavelength 1.25Gbps to 6.25Gbps applications

Specifications

Electro-Optical Characteristics (Typical values are at +3.3V @ 25°C)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Power Supply	V_{CC}	3.0		3.6	V	
Supply Current	I_{CC}			62	mA	No loads
Differential Responsivity	R_d	2.8		6.8	mV/uW	$\lambda=1310\text{nm}$, $R_{load}=100\text{ohm}$, $P=-18\text{dBm}$
Single Ended Responsivity	R_s	1.4		3.4	mV/uW	$\lambda=1310\text{nm}$, $R_{load}=50\text{ohm}$, $P=-18\text{dBm}$
TIA RSSI	Slope	0.9	1.0	1.1	mA/mA	
	Offset	0	40	100	nA	
	Linearity Limit			1.6	mA	
Small-Signal Bandwidth	BW	5.0			GHz	$P=-18\text{dBm}$
Low-Frequency Cut Off	LF			70	kHz	
Rise/Fall Time (20-80%)	tr/tf			85	ps	$\lambda=1310\text{nm}$, $P=-18\text{dBm}$
Saturation Power	P_{sat}	0			dBm	
Single Ended Output Impedance	R_o		50		ohm	
Wavelength	λ	1260		1620	nm	
Sensitivity				-18	dBm	$\lambda=1310\text{nm}$, @6.25Gbps, PRBS7, ER=7dB, BER= 10^{-11}

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

Note: Specifications are subject to change without notice.