



PDT-A13P5-25GA3

25Gbps InGaAs PIN Photodiode with Pre-Amplifier



Overview

The Lasermate PDT-A13P5-25GA3 is a high-speed, high-sensitivity 25Gbps InGaAs photodiode integrated with a pre-amplifier. Packaged in a 5-pin TO-46 metal can, this device is optimized for ultra-high-speed optical fiber communications operating in the 1310nm and 1550nm wavelength bands.

Features

- InGaAs PIN photodiode with integrated pre-amplifier
- Industry standard 5-pin TO-46 package with aspherical lens
- Photocurrent monitoring available
- Single power supply +3.3V

Applications

- High-speed optical fiber communication systems
- Supports up to 25.78125Gbps applications

Specifications

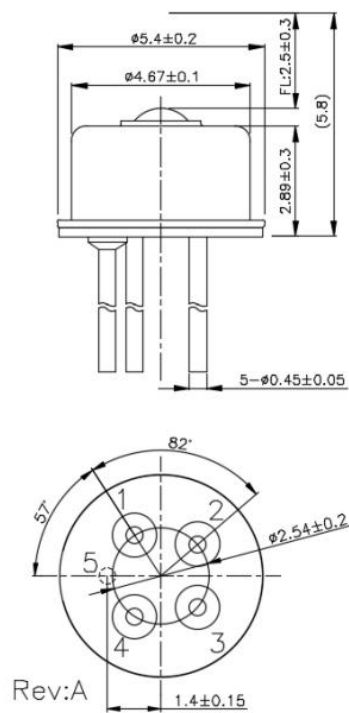
Electro-Optical Characteristics (T _A =25°C)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Power Supply	V _{CC}	3	3.3	3.5	V	
Supply Current	I _{CC}		29		mA	No loads
Differential Responsivity	R _d		0.9		mV/uW	λ=1310nm, R _{load} =100ohm, P=-10dBm
TIA RSSI	Slope		0.25		mA/mA	TIA RSSI
	Offset		10		nA	
	Linearity Limit			2	mA	
Small-Signal Bandwidth	BW		17		GHz	
Low-Frequency Cut Off	LF		100		kHz	
Rise/Fall Time (20-80%)	tr/tf		21		ps	P=-10dBm, λ=1310nm ⁽¹⁾
Saturation Power	P _{sat}	2			dBm	λ=1310nm, @25.78125Gbps
Single Ended Output Impedance	R _o		50		ohm	
Wavelength	λ	1260		1360	nm	
Sensitivity				-14	dBm	λ=1310nm, @25.78125Gbps, PRBS31, ER=4.3dB, BER=5E-5

Notes:

1. The spec and tested data are subject to ROSM level (flexible circuit attached) measurement.

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)



Pin Configuration

Pin Number	Function
1	Dout (+)
2	Vcc
3	Isource
4	Dout(-)
5	Gnd

The above specifications are subject to change without notice.