



APD-A13P5-1GB3

1.25Gbps 1260-1620nm InGaAs Avalanche Photodiode (APD) plus Burst Mode Pre-Amplifier in TO-46 Package, -40 to 85°C

Overview

The Lasermate APD-A13P5-1GB3 avalanche photodetector is an InGaAs avalanche photodiode integrated with a transimpedance amplifier that provides high-speed response at 1.25Gbps. Designed for use in fiber optic data communication applications.



Features

- 1310nm/1550nm burst mode APDTIA 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
- Supports +3.3V application
- Wide operation temperature -40 to 85°C

Applications

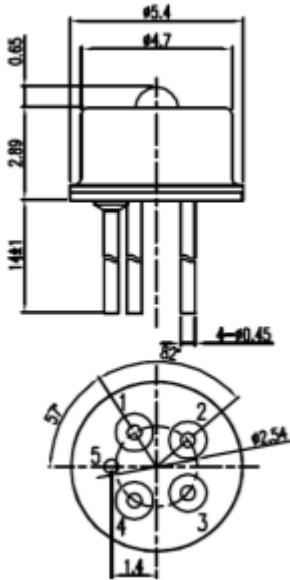
- High speed data communication
- Gigabit Ethernet
- Fiber channel

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 _{CC}	2.8	3.3	3.6	V	
Supply current	I _{CC}			35	mA	No loads
APD breakdown voltage	V _{BR}	30		46	V	I _d =10uA, T _A =25°C
Dark current	I _D			150	nA	V _R =0.9*V _{BD}
V _{BR} temperature coefficient	γ		65		mV/°C	
Small-signal bandwidth	BW	700			MHz	P=-32dBm, M=9
Saturation power	P _{sat}	-6			dBm	
Responsivity	R	0.75	0.9		mA/uW	λ=1310nm, M=1
Wavelength	λ	1260		1620	nm	
Sensitivity				-32	dBm	λ=1310nm, @1244.16Mbps, PRBS7, ER=10dB, BER=10 ⁻¹⁰

Outline Dimensions (unit: mm)



Pin Configuration

1. Dout
2. Vcc
3. Vapd
4. $\overline{\text{Dout}}$
5. Gnd

Note: Specifications are subject to change without notice.