OSI LaserDiode, Inc.
An OSI Systems Company

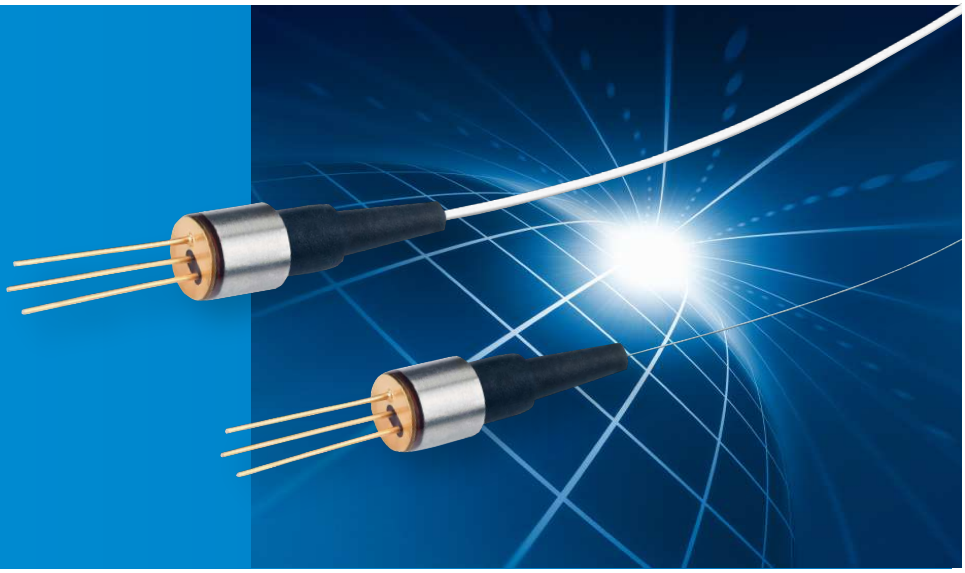
4 Olsen Avenue, Edison, NJ 08820 USA
phone: (732) 549-9001 • fax: (732) 906-1559
www.laserdiode.com

InGaAs APD Photo Diode Modules

ISO 9001:2008 Certified

- InGas APD Photodiode
- Low Dark Current
- High Speed 2GHz
- 800nm to 1700nm Response
- Miniature Package
- Low Back Reflection
- RoHS Compliant

- Applications:
  - OTDR Receiver
  - Line Receivers
  - Long Haul



The **LAPD 3080** is a 75um **InGaAs** mesa structure **APD** housed in a hermetic 3 pin coaxial package. The **APD** is coupled to either a multimode or singlemode fiber pigtail. The **APD** is of mesa type construction giving the device fast recovery times from optical overloads. The low noise, overload tolerant **LAPD 3080** coax **APD** makes the devices ideal for **OTDRs**, line receivers and any other low light level detection/signal transmission application.

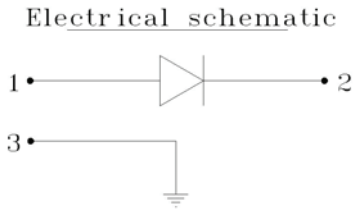
Specifications and Limits

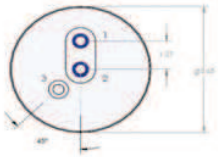
Performance @25˚C

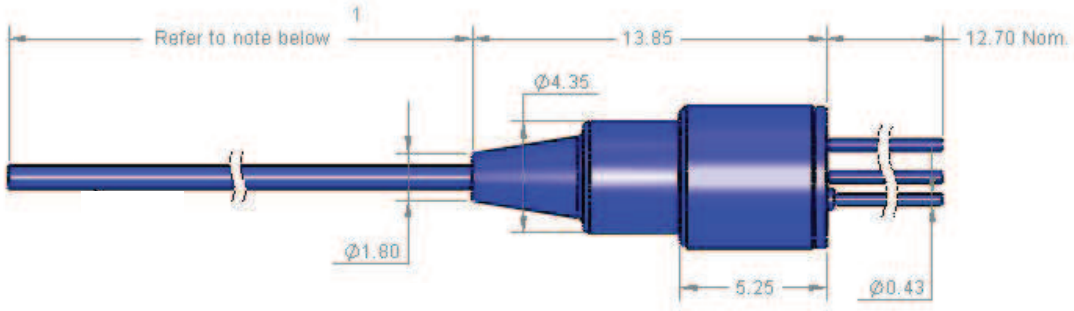
PARAMETERS	SYMBOL	CONDITIONS	Min	Typ	Max	Units
Active Area Diameter	Ø			75		µm
Operational Wavelength	λ		800	1550	1700	nm
Responsivity	R	λ= 1550nm, M = 1	0.7	0.75		A/W
Dark Current	I_d	M = 10		5.6	7	nA
Breakdown Voltage	V_{br}	I_d> 100 uA	30	37	40	V
dV_{br}/ dT	Γ		15	17	19	mV / ˚C
Capacitance	C_T	f = 1 MHz, M> 3		1		pF
Bandwidth	$f_3$db	RL = 50Ω, 3 < M < 10		2		GHz
Excess Noise Factor	N_{EF}	M = 10		3.5		
Noise Equivalent Power	NEP	λ = 1550nm, M = 10		3.7×10^{-14}		W / $Hz^{0.5}$
Absolute Max Reverse Current	I_r				3	mA
Max Forward Current	I_f				5	mA
Optical Return Loss	ORL				-30	dB
Operating Temperature Range	T_{op}		-40		85	˚C
Storage Temperature	T_{stg}	Non operating	-40		85	˚C

Outline Drawing

PINOUT TABLE	
PIN No.	Description
1	Anode
2	Cathode
3	Ground







Note 1: Standard fiber length: 1 meter minimum
Dimensions: Millimeters
Detailed package drawings are available on LDI website.

Model Number Table

When ordering, refer to the numbering diagram below.

Model#	Fiber Type	Nominal Fiber Size (um)
LAPD 3080-SMR	SMF 28e	9/125/245/900
LAPD 3080-50R	GI MMF	50/125/245/900

Products can be ordered directly from OSI Laser Diode, Inc. or its representatives.
For a complete listing of representatives, visit our website at
www.laserdiode.com

Personal Hazard and Handling Precautions:
Handle optical fiber with normal care, avoiding stretch, tension, kink or bend abuse. ESD precautions apply.

Warranty:
Please refer to your product purchase agreement for complete details or check with your OSI Laser Diode sales representative.

Notice:
OSI Laser Diode, Inc. reserves the right to make changes to the products or information contained herein without notice.
No liability is assumed as a result of their use or application.