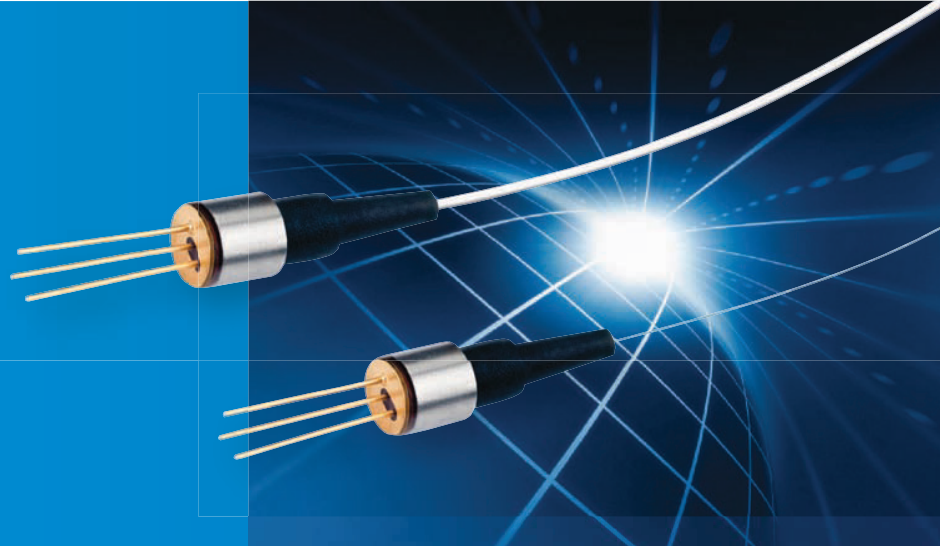


- InGaAs APD Photodiode
 - Low Dark Current
 - High Speed 2GHz
 - 800nm to 1700nm Response
 - Miniature Package
 - Low Back Reflection
 - RoHS Compliant
- Applications:
- OTDR Receiver
 - Line Receivers
 - Long Haul



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.

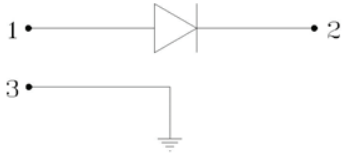
Specifications and Limits

Performance @25°C

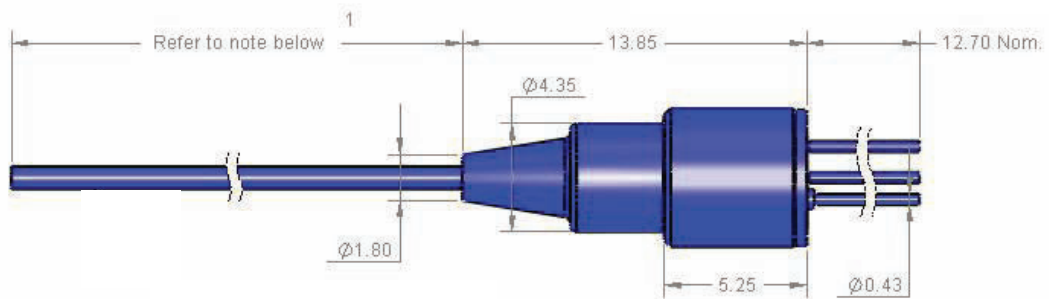
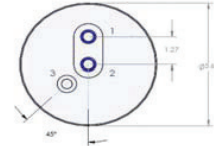
PARAMETERS	SYMBOL	CONDITIONS	Min	Typ	Max	Units
Active Area Diameter	\varnothing			75		μm
Operational Wavelength	λ		800	1550	1700	nm
Responsivity	R	$\lambda = 1550\text{nm}, M = 1$	0.7	0.75		A/W
Dark Current	I_d	$M = 10$		5.6	7	nA
Breakdown Voltage	V_{br}	$I_d > 100 \mu\text{A}$	30	37	40	V
dV_{br}/dT	Γ		15	17	19	$\text{mV}/^\circ\text{C}$
Capacitance	C_T	$f = 1 \text{ MHz}, M > 3$		1		pF
Bandwidth	$f_{3\text{db}}$	$RL = 50\Omega, 3 < M < 10$		2		GHz
Excess Noise Factor	N_{EF}	$M = 10$		3.5		
Noise Equivalent Power	NEP	$\lambda = 1550\text{nm}, M = 10$		3.7×10^{-14}		$\text{W}/\text{Hz}^{0.5}$
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	$^\circ\text{C}$
Storage Temperature	T_{stg}	Non operating	-40		85	$^\circ\text{C}$

Outline Drawing

Electrical schematic



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.