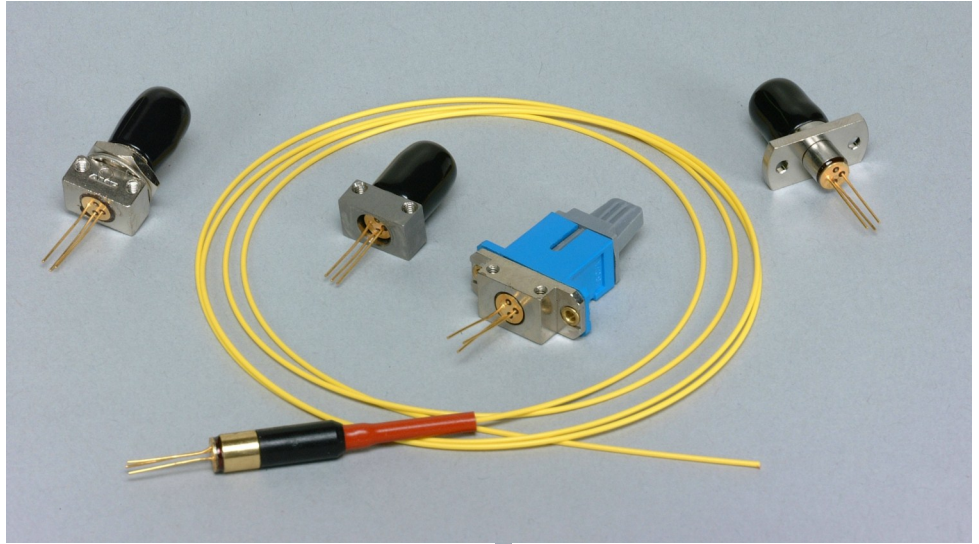


InGaAs APD's

PD-LD Inc. offers low noise, high responsivity InGaAs Avalanche Photo Diodes (APD's) in convenient fiber coupled packages. These assemblies incorporate top-illuminated 55 micron diameter active area APD's that responds optimally to both 1310 and 1550 nm light sources .

Each module contains a semiconductor whose bandwidth is ideally suited to industry standard transmission rates from DC to 2.5 GHz. The planar fabrication techniques used to create these semiconductors make them optimal for applications demanding high reliability receivers. For optimal performance with gains on the order of 10 to 15 they should be operated at voltage biases below breakdown.

These modules are available with either bare or connectorized fiber pigtailed or in receptacle style housings suitable for board or panel mounting. Receptacle mounted APDs are not available with LBR feature. These high reliability units may be operated and stored between -40 and 85°C.



Applications

- SONET/SDH
- FTTH
- ONU Nodes
- High Frequency Test Equipment
- Low light receivers

Features

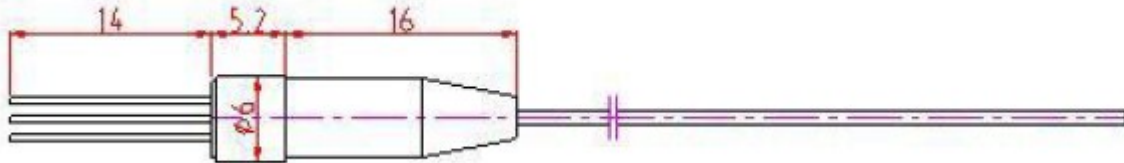
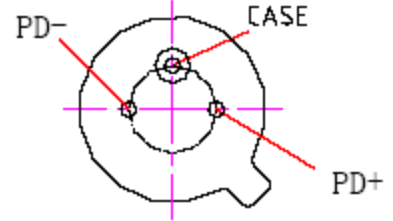
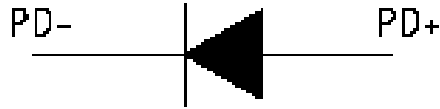
- InGaAs APD
- High Responsivity
- Low capacitance receivers
- High Gain, low Noise
- -40 to 85°C Operating Range
- FC, ST ,SC Receptacle Housing
- Pigtailed w/9/125 um Fiber

Parameter	Units	Symbol	Values
Operating Wavelength	nm	Lambda	950 to 1650nm
Responsivity 1550nm fiber coupled, M=1	A/W	R	0.85 min
Responsivity 1310nm fiber coupled M=1	A/W	R	0.7 min
Analog Bandwidth (-3 dB from 130 MHz) M=10, 50 Ohm load	GHz	BW _e	2.5 min
Active Diameter	um	D	55 typ.
Total Dark Current M=10, Vr=0.9 Vb	nA	Id	10 typ 50 max
Breakdown Voltage Id=10uA	Vbr	V _b	30 min 60 max
Capacitance, V _{br} -0.9, M=10, f=1MHz	pF	C	0.38 typ 0.5 max
Temperature Coefficient	V / °C	Delta T	0.09 typ
APD Reverse Current	uA	I _r	500 max
Maximum Multiplication Factor 1310nm		M max	25

Specifications at 22°C and are subject to change without notice. Please contact PD-LD Sales .

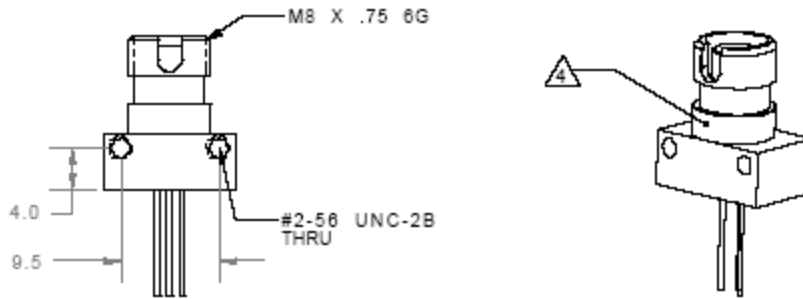
2-11 InGaAs APD.Rev.1

Mechanical Specifications and PIN-OUT

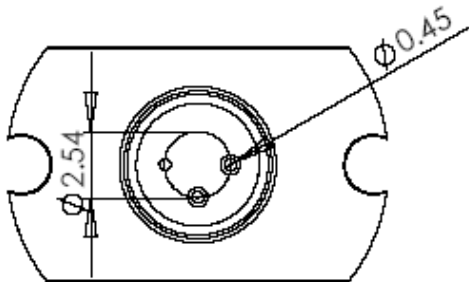
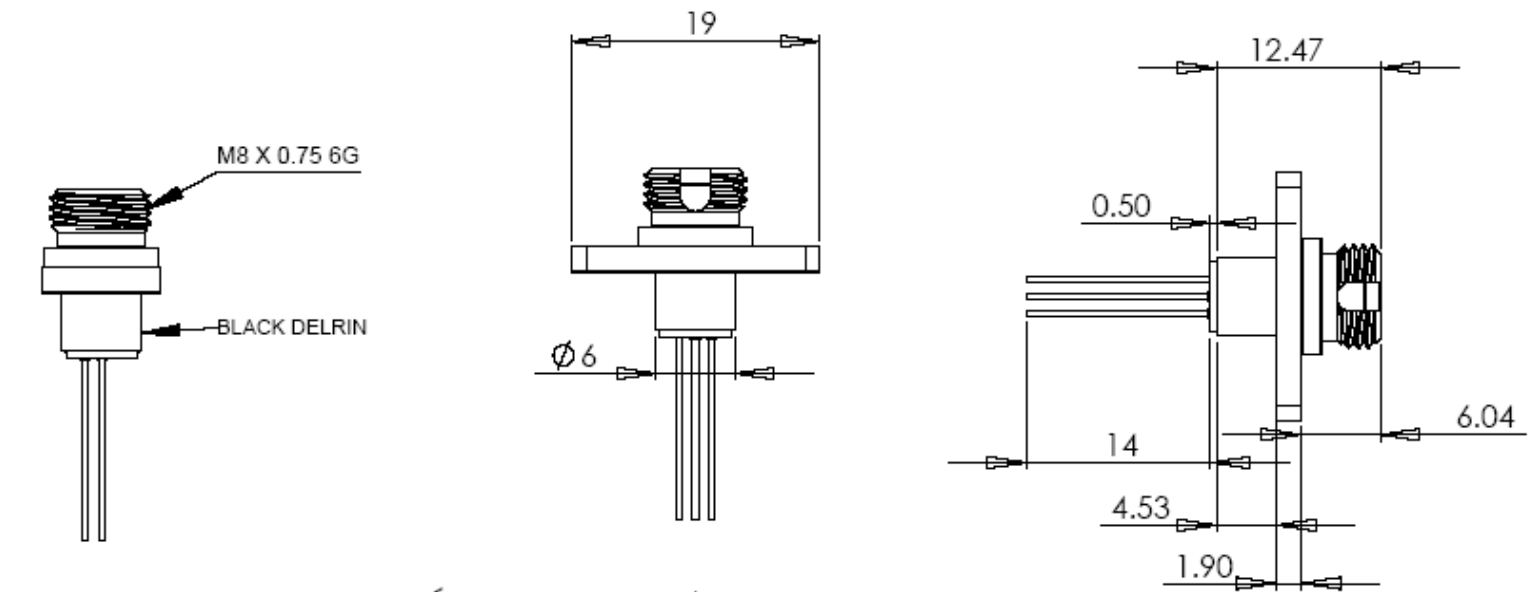


Fiber Pigtailed Devices		Receptacle Mounted Device	
PDIABS055FCCB-O-V-MM		PDIABS055RRRF-O-V	
D= Detector 055= Diameter (um)	IA= InGaAs APD RRR = Receptacle FC1 = FC Panel Mount FC2 = FC Board Mount ST1 = ST ST2 = ST low profile SC1 = SC	BS = 55 um APD F = Fiber Type 1 = 9/125/900 SMF 2 = 50/125 MMF 3 = 62.5/125 MMF 5= 9/125/900 LBR 9 = Supplied by cust	CC = Connector Type ST = ST SC = SC SA = SC/APC FC = FC PC FA = FC/APC . 00 = No Connector
B=Bracket Type (pigtail only) A = None B = Panel Mount D = Board Mount X = Customer Supplied	O= Lead Orientation 0=N/A T= Grnd at 6:00 V= Version 0=standard	M = Length in meters (pigtail only) 10 = 10meter 03 = 3 meters 01 = 1 meter .1 = .1 meters .5 = 0.5 meters	

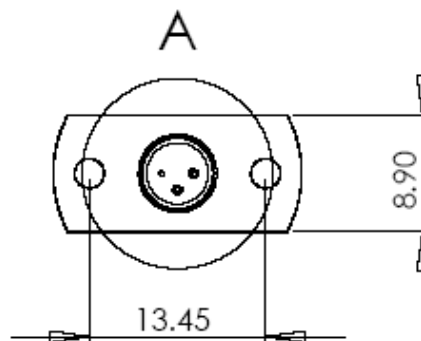
FC Board Mount Receptacle



FC Panel Mount Receptacle



DETAIL A
SCALE 4 : 1



NOTES:

1. THESE DEVICES ARE ESD SENSITIVE. ESD PRECAUTIONS ARE ADVISED.
2. ALL DEVICES ARE SHIPPED WITH ESD LEAD PROTECTORS AND DUST COVERS.
3. ALL DEVICES WILL BE MARKED WITH A PD-LD SERIAL NUMBER.