

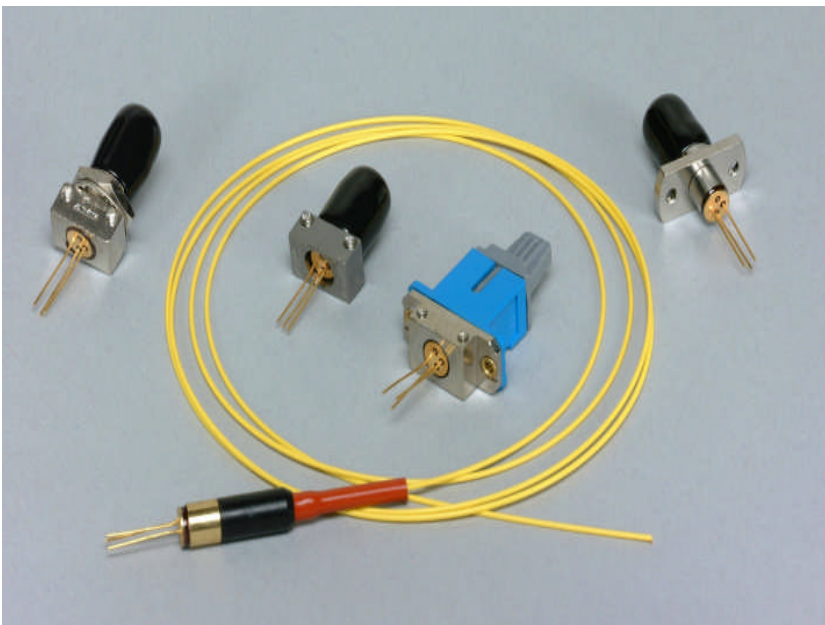


Analog InGaAs PIN Detectors



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PD-LD Inc. offers low noise, high responsivity analog InGaAsP photo detectors in convenient fiber coupled packages. These assemblies incorporate 70 micron diameter active area detector 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 (typ). The low intermodulation distortion values make them useful in multi-channel CATV applications. When fiber pigtailed these components are available with low back reflection performance. LBR is specified as -40 db maximum optical return loss.



Features

- InGaAs Photodiodes with low Intermodulation Distortion (IM2)
- High Linearity & Responsivity
- Low-Capacitance Receivers
- -40 to 85°C Operating Range

Applications

- CATV Trunk
- Feeder
- ONU Nodes
- Forward Path AM CATV to 2.5 GHz
- Return Path CATV Receivers

Performance Specifics: Examples (more options available)

Parameter	Units	Symbol	PDINBJ075 Series (V _R =5V, T=25 C)
Operating Wavelength	nm	Lambda	1100 to 1600 nm
Responsivity -1300 nm -1550 nm	A/W	R	0.80 min 0.80 min
Analog Bandwidth (-3 dB)	GHz	BW _e	2.5 min
Second Order Intermod Distortion Product ¹	dBc	IM2	-70 max
Third Order Intermod Distortion Product	dBc	IM3	-80 max
Dark Current	nA	I _d	1 max @25 C 100 max @ 85C
Reverse Voltage	V	V _R	50 max
Breakdown Voltage	V	V _{BD}	55 typ @I _R =10 uA 25 min
Capacitance	pF	C	0.8 max 0.56 typ
Forward Current	mA	I _F	50 max
Optical Back Reflection	OBR	dB	-40
Polarization Dependent Loss	PDL	dB	+/- 0.1

¹ IM2 measured at 5V reverse bias, 1 mW input optical power, 1310 nm, 50 ohm matched impedance ,f1+ f2 =850 MHz



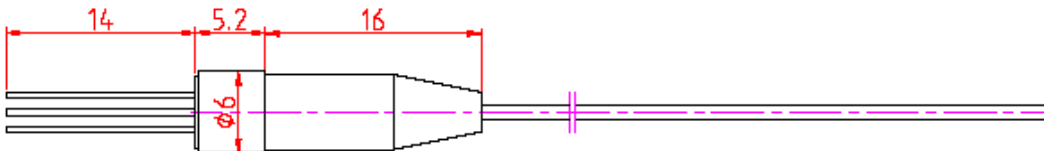
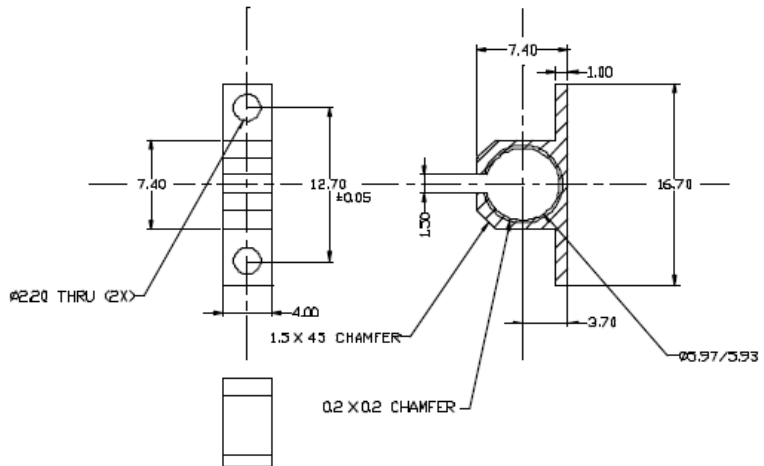
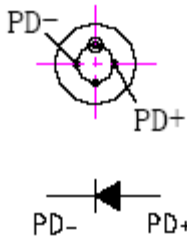
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Packaging Options

These modules are available with either bare or connectorized 9/125 micron fiber pigtailed or in receptacle style housings (FT, SC, or SC) suitable for board or panel mounting. These high reliability units are operational over industrial environmental conditions.

Pinout & Mechanical Dimensions (mm)

Type A

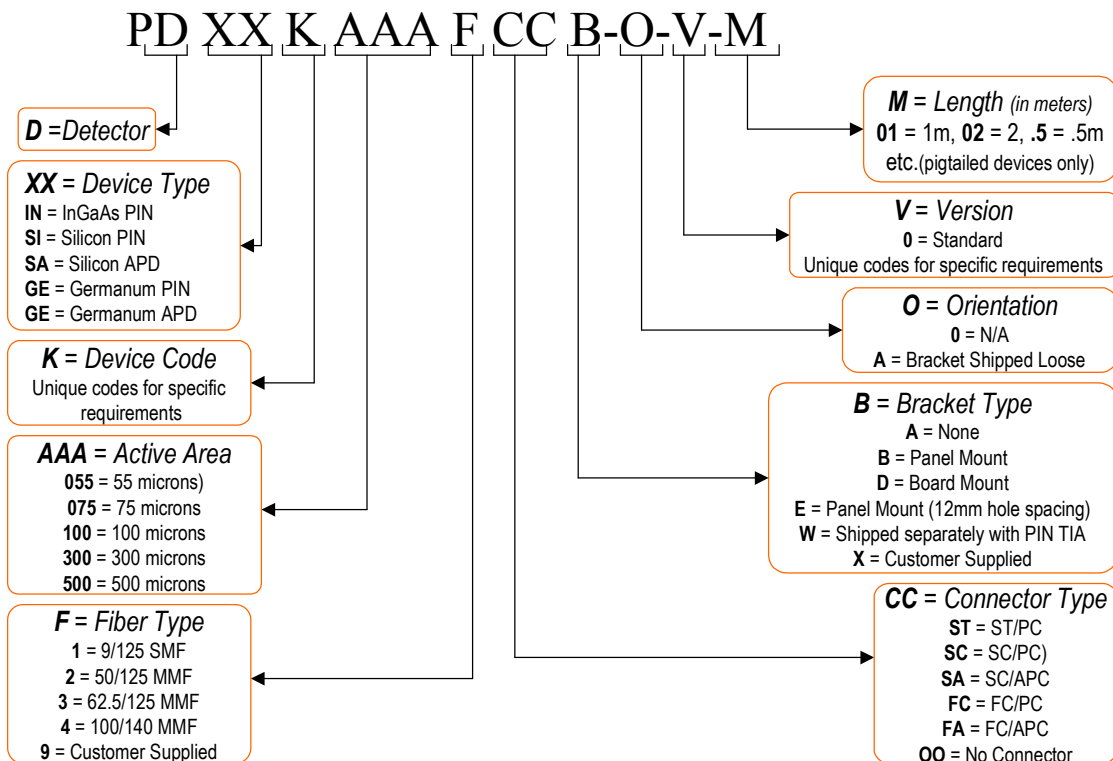




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Ordering Information

Data Legend: Pigtailed Photodiodes & APDs



Data Legend: Receptacle Photodiodes & APDs

