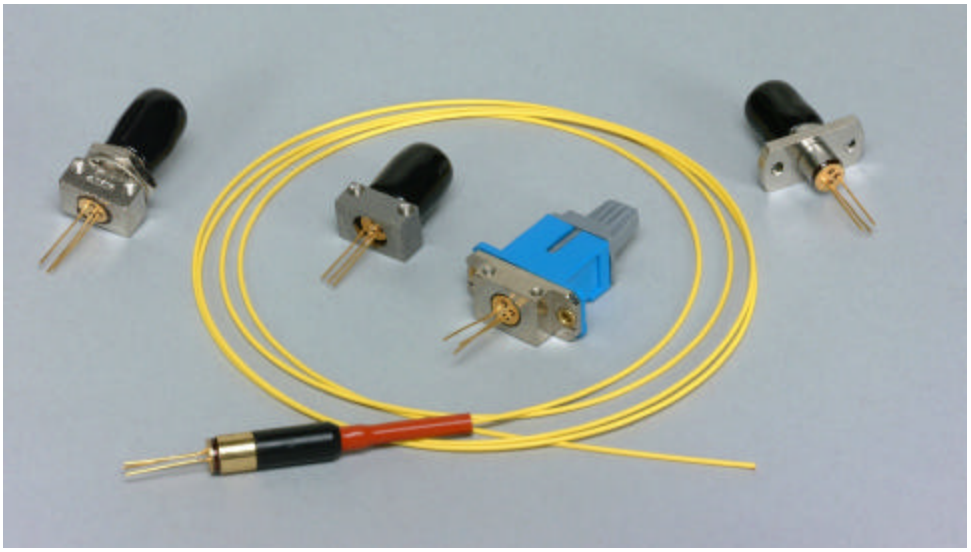
PD LD Inc

PDXX Series

Detectors for Fiber Optics
InGaAs, Si and Ge PIN Diodes
Si and Ge APDs

LASER COMPONENTS

PD-LD Inc. offers a variety of standard and custom PIN Photodiodes and APDs in fiber coupled packages. The semiconductors offered are of proven manufacture and design. Our Silicon devices cover the optical spectrum from 400 to 1100nm, InGaAs is optimal from 1100 to 1650nm and Germanium is suitable from 800 to 2100nm. All devices are available in fiber pigtailed co-axial packages or in connector style receptacle packages.



Pigtailing

Devices can be pigtailed with any size optical fiber that is compatible with its active area size. Pigtails may range in core size from 3um to 100micron. One meter is the standard length, but any length or connector termination may be specified. Pigtails may be terminated with ST, FC, SC and LC connectors with either PC or APC polish.

Receptacles

Standard ST, FC and SC housings are available in both panel and board mountable versions. These receptacles can be optimized for use with both single mode and multimode optical fibers.

Low Back Reflection Assemblies

For those applications requiring low optical back reflection, PD-LD offers a series of fiber pigtailed InGaAs detectors. Typically, 55 um or 75um InGaAs detectors are aligned to angle-polished, radially tuned fiber pig-tails, in order to minimize incident reflected light. With this process, back reflection values from –40 to –50dB maybe specified. Such devices are ideal for CATV, tap monitor and high speed digital applications.

Manufacturing

PD-LD Inc. maintains a large inventory of the most popular detector sizes and pin-outs. Efficient package designs and manufacturing processes allow PD-LD to rapidly support both small and large volume requirements. Complete 100% testing of all critical parametric device values ensure optimal performance and quality. Not all receptacle packaging styles are represented on this data sheet, so please contact PD-LD for specific needs.

PD-LD Part Number	Active Area (µm)	Responsivity (A/W) Min.	Responsivity (A/W) Typ.	Capacitance Typ.	Capacitance Max	Dark Current Typ.	Dark Current Max	Bandwidth -3dB (GHz)	Pin-Out
InGaAs (@ 5V bias, 1300nm Laser Source, 25°C)									
PDIND0551FCA-0-0-01	55	0.65	0.8	0.55	0.75	0.4	0.8	3.5	W
PDINP075FC11-W-0	75	0.65	0.8	0.65	0.90	0.5	0.8	2.0	T
PDINR075ST71-W-0	75	0.65	0.8	0.65	0.90	0.5	0.8	2.0	R
PDINT0751SC12-V-0	75	0.65	0.8	0.65	0.90	0.5	0.8	2.0	W
PDINC1003FCA-0-0-01	100	0.65	0.8	1.15	1.50	0.5	2.0	1.0	W
PDINV300FC21-M-0	300	0.65	0.8	4.0	10	2.0	10	0.18	W
Silicon (@10V bias, 850nm Laser Source, 25°C)									
PDSIU500200A-0-0-01	500	0.35	0.45	2.5	-	0.1	1.0	1.5	R
Germanium APD (@10V bias, 1310 Laser Source, 25°C, 70%typ. Quantum Efficiency, Idark @Multiplication Factor)									
PDGAJ1001FCA-0-0-01	100	0.6	0.7	1.5	2.0	100	150	1.5	G

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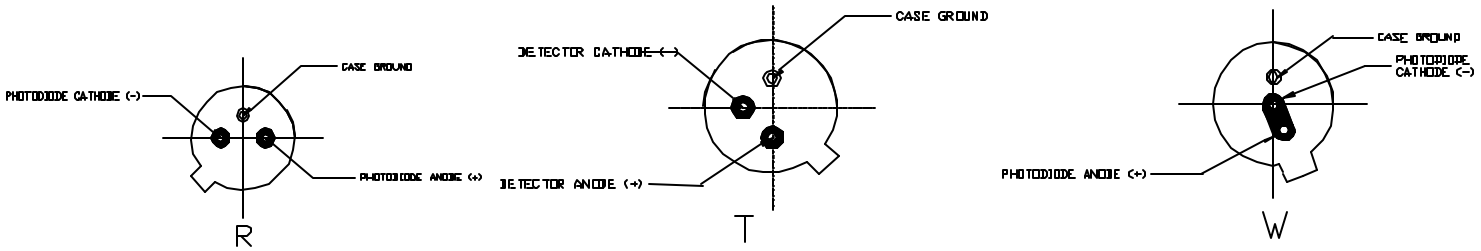
Pinout & Mechanical Dimensions (mm)



Pigtailed

P DXXKAAAFCCB-O-V-M

Receptacle

PDXXKAAACCCF-O-V

Device Type XX	Device Code K	Active Area AAA	Fiber Size F (µm)	Connector CC	Receptacle CCC	Bracket B Pigtail Only	Orientation O	Pigtail Length M
IN=InGaAs PIN	Unique Device codes are assigned by PD-LD to each detector	055=55µm	1=9/125/900	FC=FC/PC	FC1=Panel Mount	A=None	TBD	10=10m
SI= Silicon PIN		075=75µm	2=50/125/900	FA=FC/ APC	FC2=Board Mount	B=102-10112 Panel		03=3m
SA= Silicon APD		100=100µm	3=62.5/125/900	FU=FC/ UPC	SC1=Panel Mount	C=102-10181 BdMt		01=1m
GE=Germanium PIN		300=300µm	4=100/140/900	SC=SC/PC	SC2=Panel or Board Mount	D=102-10198 BdMt		.5=0.5m
GA=Germanium APD		500=500µm	5=9/125/900 Low Back Reflec-tion	SA=SC/ APC	ST7=Low Profile	W=Bracket Shipped Separately		.1=0.1m
			9=Customer Sup-plied	ST=ST/PC	ST8=Board/ Panel Mount	X=Custome r Supplied		
			Sensor Fiber and other sizes available	00=No Con-nector	UN1=Universa l Bd. Mt.			

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