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Find the *Anadigics PD075-003-513* at our website: ***Click HERE***

PD075
75μm InGaAs Photodiode

FEATURES

- **Planar Structure**
- **High Responsivity**
- **Low Dark Current**
- **Dielectric Passivation**
- **100% Purge Burn-in**



PD075-003-0xx
Ceramic Sub-Mount



PD075-003-1xx
TO can Package

APPLICATIONS

- **1.25Gb/s and 2.5Gb/s Optical Receivers**
- **Gigabit Ethernet and OC-48 / STM-16**
- **Test and Measurement**
- **Analog Communication Systems**



PD075-003-3xx
SC/APC Pigtail



PD075-003-5xx
FC Receptacle

PRODUCT DESCRIPTION

The PD075 is an InGaAs photodiode with a photosensitive region 75μm in diameter. It is intended for use in high speed, low noise communication systems, such as 1.25Gb/s or 2.5Gb/s optical receivers and for use in optical test and measurement equipment.
Planar semiconductor design and dielectric passivation provide low noise performance.

Reliability is assured by hermetic sealing and 100% purge burn-in (200°C, 15 hours, Vr = 20V). The device can be assembled on a ceramic sub-mount or in a TO can. It can be pigtailed with SC, FC or ST connectors (UPC or APC). It can also be mounted in an SC, ST of FC receptacle. Custom packages are an option.

ELECTRICAL CHARACTERISTICS

Table 1: Electrical Specifications

PARAMETER	MIN	TYP	MAX	UNIT
Dark Current (I_D)	-	0.1	1.0	nA
Capacitance (Ceramic sub-mount) (1)	-	0.6	0.7	pF
Capacitance (Receptacle, Pigtail, TO can) (1)	-	0.8	0.9	pF
Responsivity at 1310nm (Ceramic sub-mount)	0.80	0.90	-	A/W
Responsivity at 1550nm (Ceramic sub-mount)	0.85	0.95	-	A/W
Responsivity at 1310nm (Receptacle, Pigtail, TO can)	0.80	0.85	-	A/W
Responsivity at 1550nm (Receptacle, Pigtail, TO can)	0.85	0.90	-	A/W
3dB bandwidth (50Ω) (Ceramic sub-mount) (1)	3800	4400	-	MHz
3dB bandwidth (50Ω) (Receptacle, Pigtail, TO can) (1)	2900	3300	-	MHz
Optical Return Loss (Pigtail using SMF-28)	50	55	-	dB
Optical Return Loss (Receptacle, APC connector)	40	45	-	dB
Operating voltage	-	5	20	V

(1) 5V bias voltage

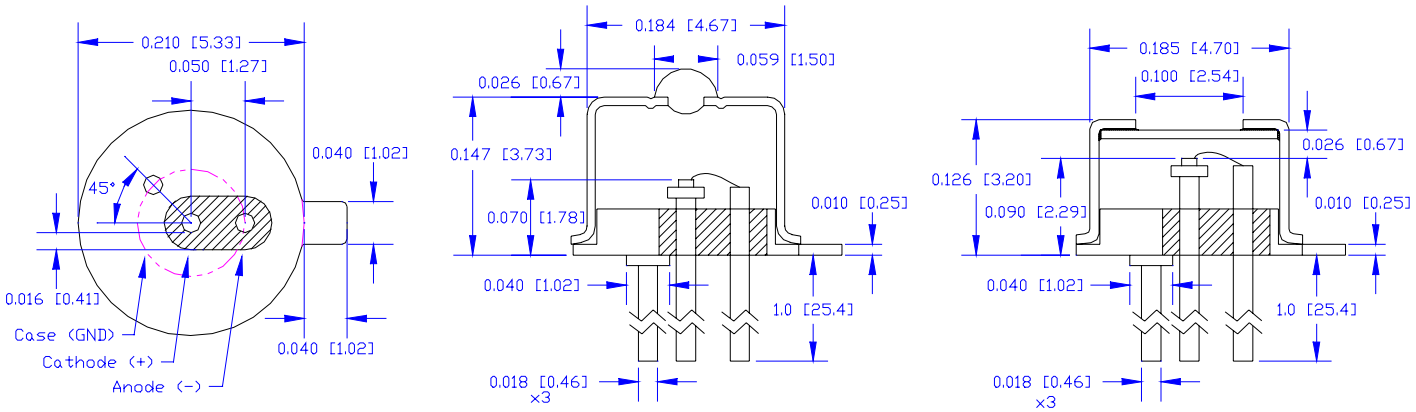
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Table 2: Absolute Maximum Ratings

PARAMETER	MIN	MAX	UNIT
Forward Current	-	5	mA
Reverse Current	-	250	µA
Reverse Voltage	-	30	V
Optical input power	-	5	mW
Operating Case Temperature	-40	+85	ºC
Storage Temperature	-40	+85	ºC
Soldering temperature (10 seconds)	-	+250	ºC

Stresses in excess of the absolute ratings may cause permanent damage. Functional operation is not implied under these conditions. Exposure to absolute ratings for extended periods of time may adversely affect reliability.

PACKAGE DIMENSIONS – PD075-003-100 and PD075-003-105



Dimensions: INCHES [mm]

ORDERING INFORMATION

Table 3: Standard

Part Number	Options
PD075-003-100	TO46, 3pin, non AR coated, gold plated lens cap
PD075-003-105	TO46, 3pin, non AR coated, gold plated flat window cap

Table 4: Custom

Part Number	Options
PD075-003-0xx	Custom defined size and electrical layout.
PD075-003-1xx	Package: TO46, TO56, 2 or 3 pin. Cap: Window or lens. AR or Non-AR coated. Gold or nickel plated.
PD075-003-3xx	Pigtailed: TO46, 2 or 3 pin. Fiber length, 0.5 meter, 1.0 meter Fiber type: Multimode, single mode (SMF-28) or custom supplied Connector Type: SC, ST or FC. APC or UPC
PD075-003-5xx	Receptacle, 2 or 3 pin. SC, ST or FC aligned

Please contact Anadigics for the specific part number and pinout that suits your needs

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