



High Linearity InGaAs PIN Photodiode

ACP's PTD-HL series InGaAs PIN Photodiode is sensitive at 1310nm and 1550nm bands. It has high linearity and very low second-order inter-modulation distortion (IMD2). Our state-of-the-art planar fabrication techniques lead to high quality and reliability.

PERFORMANCE SPECIFICATIONS

Standard

FEATURES

Planar Semiconductor Design and Dielectric Passivation
 3-Pin Coaxial Streamline Packaning with Fiber Pigtail
 Souperior Noise and Photoelectric Performance (High Linearity)
 Hermetical Packaging and 100% Purge Burn-In

APPLICATION

Optical Communication System
 Optical Power monitor
 Analog CATV Application, Such as High Frequency(860MHz) CATV receiver
 Multi-access Transmitter, etc.

Parameter	Specifications				
	Symbol	Test Conditions	Min.	Typ.	Max.
Operating Wavelength	λ	-	1000nm		1650nm
Dark Current	ID	VR=5V, Ee=0			0.20nA
Responsivity	Re	VR=5V, λ =1310nm	0.85A/W	0.90A/W	
Responsivity	Re	VR=5V, λ =1550nm	0.90A/W	0.95A/W	
Capacitance	c	f=1MHz, Case grounded VR=5V, Ee=0		0.63pF	0.75pF
Operating Voltage	Vopr	-		-5V	-15V
Second Order Inter- modulation Distortion	IMD2	f1=400MHz, P1=-3dBm; f2=450.25MHz, P2=-3dBm; MI=40%; Pavg=0dBm; Rload=50 Ω , VR=12V	-70dB		-80dB
Back Reflection	RL	-			-40dB
Frequency Responsibility	BW	VR=5V, 50 Ω Load with lead, length=6mm, Case open	2GHz		
Package Dimension	See "MECHANICAL DIMENSIONS"				

ABSOLUTE MAXIMUM RATINGS(T=25°C)

Parameter	Min.	Typ.	Max.
Reverse Voltage			25V
Input Optical Power			10dBm
Reverse Current			10mA
Forward Current			10mA
Operating Temperature	-40°C		+85°C
Storage Temperature	-40°C		+85°C
Lead Solder Temperature			+260°C
Lead Solder Duration			10s
Fiber Yield Strength	5N		

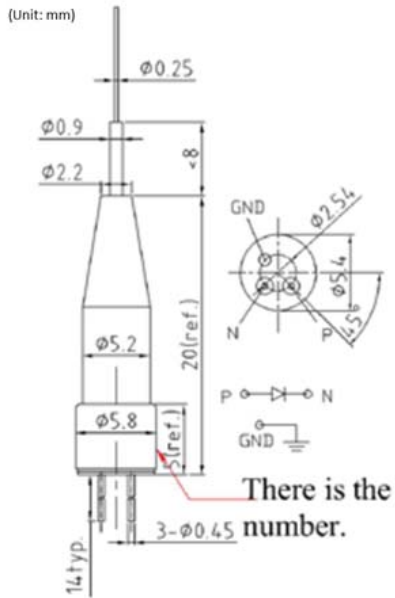
Note: 1. ESD protection is imperative. It is recommended to use grounding straps, anti-static mats and other EDS protective equipment when handling or testing a photodiode device.

2. Please shorten the length of device leads as much as possible.

All parameters are measured under 25°C.

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MECHANICAL DIMENSIONS



PORT CONFIGURATIONS



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ORDERING INFORMATION

HLPTD						
Operating Wavelength	Mounting style	Fiber Type*	Pigtail Style	Fiber Length	Connector	
35=1000 - 1650nm	1=With mount flange 2=Without mount flange	2=SMF-28 Ultra (G.657.A1) 3=ClearCurve ZBL(G.657.B3)	0=Free space 1=Bare fiber 6=900um tight buffer	00=Free space 05=0.5m 10=1.0m · · · 20=2.0m	0= None 1= FC/APC 2= FC/PC 3= SC/APC 4= SC/PC 5= ST 6= LC/UPC 7= LC/APC	

*1=SMF-28(G.652) is available upon request.