

Balanced InGaAs Photodiodes to 25 GHz



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LINIOBATE
Power Next Gen Photon



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Overview

The BPD25 is "push-pull" InGaAs photodiodes with each photodiode capable of handling high optical power up to +14 dBm. High Common Mode Rejection Ratio (CMRR) and low Polarization Dependent Loss (PDL) make these devices ideal for both digital and analog applications. The broad wavelength response of these photodiodes allows for multiple wavelength usage.

Features

- Lowest PDL (typical 0.05 dB)
- Normalized CMRR exceeds 30 dB
- Useable spectral wavelength range of 800-1650 nm
- Improves sensitivity by canceling DC portion of RIN and ASE noise
- High optical power handling InGaAs PIN photodiodes
- Small form-factor fiber-pigtailed package
- Improved reliability for high optical power handling
- One device for multiple wavelengths reduces operational and inventory cost
- OIP3 exceeding + 40dBm for highly linear option

Product Specifications

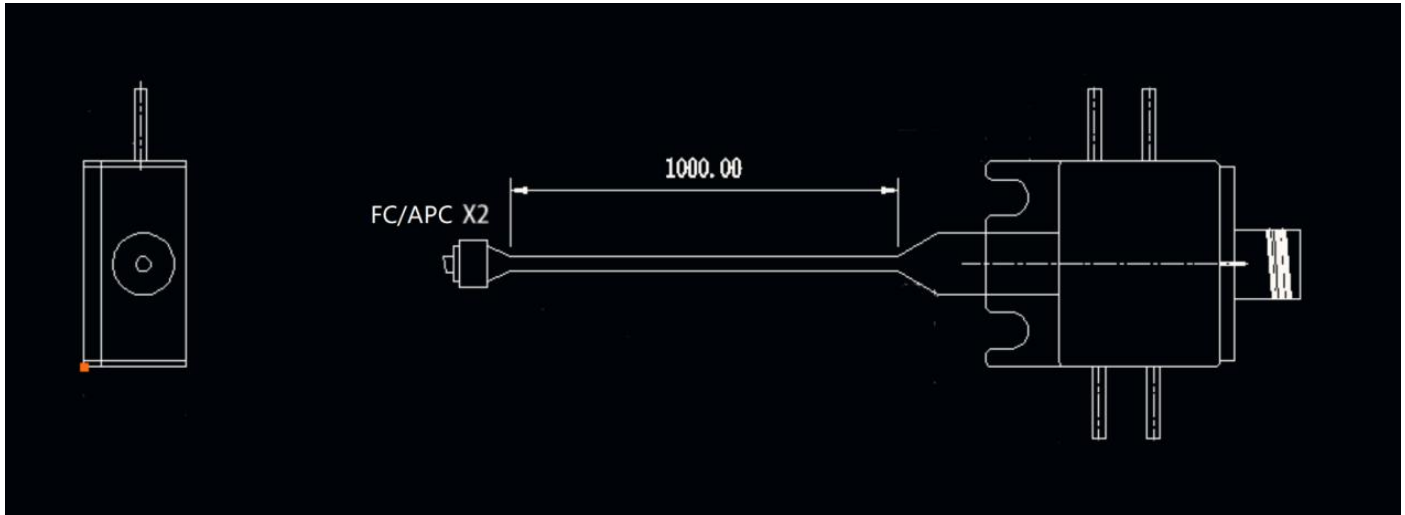
(Unless otherwise specified, all tests are conducted at 25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Operating Temperature	T _O		0		75	°C
Storage Temperature	T _s		-40		85	°C
Operating Wavelength	λ			1550		nm
Bias Voltage	V _b		3	5		V
Photosensitive Diameter	Φ			20		μm
Saturation Optical Power	P _s	λ = 1550 nm, V _b = 5 V	9	10		dBm
Responsivity	R	λ = 1550 nm, V _b = 5 V		0.7		A/W
Responsivity Imbalance	I _{mb}			1.50%		
Dark Current	I _d	V _b = 5 V		5	10	nA
3 dB Bandwidth	BW	P _{s,o} = 0 dBm, V _b = 5 V	25	26		GHz
Common Mode Rejection Ratio	CMRR	P _{s,o} = 0 dBm, V _b = 5 V	18	20		dB

Maximum Absolute Ratings

Parameter	Symbol	Rating	Unit
Optical Power	P _s	13	dBm
Forward Voltage	V _r	10	V
Operating Temperature	T _{op}	-40 ~ +70	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C
Soldering Temperature	T _p	260 (10s)	°C
Minimum Fiber Bending Radius	R _{fiber}	20	mm

Dimensions (unit mm)



Custom sizes and pins are available upon request, with the minimum size being 16*16*8mm (with pigtails, pins, and mounting details).