O-Band Inline Photodetector, 1% Tap Ratio



IPD13B1

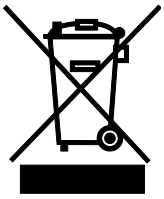
Description

Thorlabs' IPD13B1 Inline Photodetector offers real-time optical power monitoring with minimal signal disruption. Its innovative tap design captures a small portion of the optical signal without compromising fiber continuity or signal integrity. The photodiode current from the tap port is proportional to the optical output power of the fiber.

Specifications

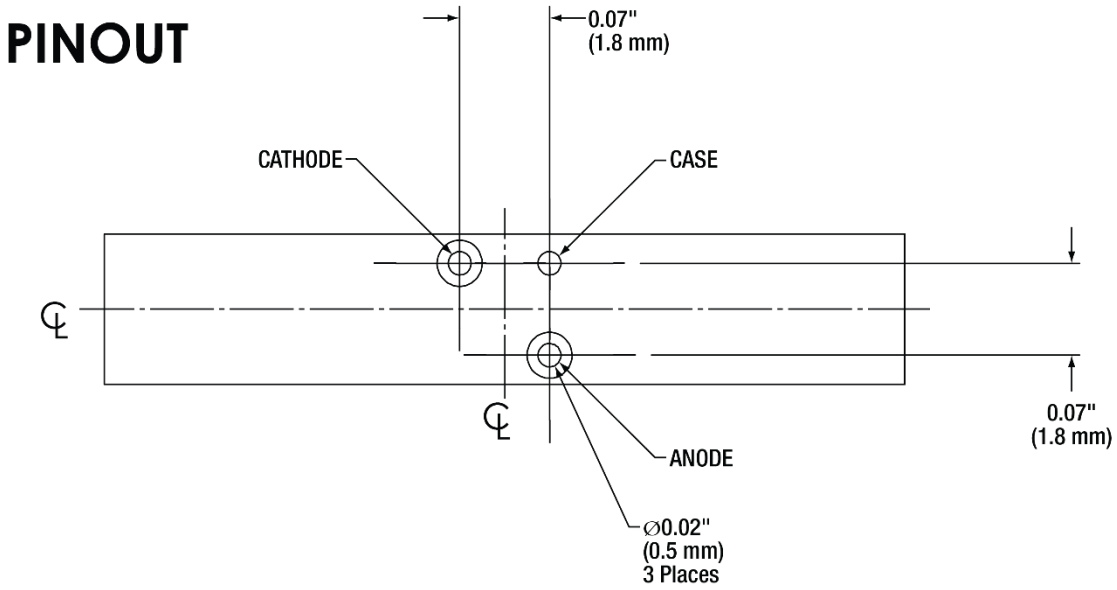
General Specifications	
Wavelength Range	1250 – 1350 nm
Design Wavelength	1310 nm
Tap Ratio	1% ± 0.5%
Insertion Loss	0.04 dB ±0.02 dB
Responsivity at 1% Tap Ratio[a]	7.5 mA/W
Polarization Dependent Responsivity (PDR)[b]	≤0.3 dB
Polarization Dependent Loss (PDL)	≤0.1 dB
Directivity[c]	≥40 dB
Max Optical Power	250 mW
Optical Return Loss (ORL)	≥55 dB
Spectral Dependence Responsivity	0.0053 dB/nm

a. Ratio of Photocurrent to Optical Output Power, Dependent on Tap Ratio
b. Maximum Change in Responsivity with Polarization
c. Ratio of Forward Directed Light Relative to Backward Directed Light



Detector and Fiber Specifications	
Fiber	SMF-28
Dark Current @ -5 V, 23 °C (Typ.)	8 nA
3dB Bandwidth @ -5 V	330 MHz
Capacitance (Typ.)	15 pF
Forward Current (Max)	25 mA
Reverse Current (Max)	5 mA
Reverse Voltage (Max)	20 V
Operating Temperature	-5 to 75 °C
Storage Temperature	-40 to 85 °C
Pinout	TO-18

Pin Layout


PINOUT
0.07"
(1.8 mm)
CATHODE
CASE
0.07"
(1.8 mm)
ANODE
Ø0.02"
(0.5 mm)
3 Places