



Unidirectional Integrated Tap Photodiode (UTPD Series)

The Unidirectional Integrated Tap Photodiode (UTPD) integrates the functionality of an optical coupler and a photodiode for optical network's power monitoring. The unidirectional feature allows the PD to respond power from input port only. It can be applied for channel power monitoring in DWDM system, in-line optical network switching protection monitoring (OLP), re-configurable optical add/drop multiplexer (OADM), and gain/attenuation monitoring in EDFA, etc.

Specifications

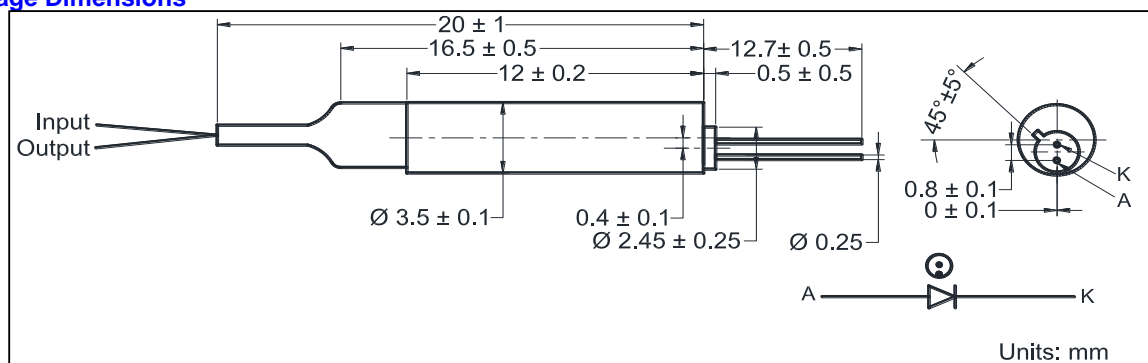
Parameter		Unit	Value	
Operating Wavelength Range (λ_{op})		nm	1528 - 1567	
Max. Insertion Loss	1%		0.3	
	2%		0.4	
	5%	dB	0.5	
	10%		0.9	
	50%		3.5	
Max. Wavelength Dependent Loss		dB	0.2	
Max. Polarization Dependent Loss		dB	0.05	
Min. Return Loss		dB	45	
	1%		7 - 15	
	2%		14 - 25	
Responsivity	5%	mA/W	35 - 65	
	10%		75 - 120	
	50%		392 - 570	
	Min. Directivity From Output to PD**		dB	35
	Max. Wavelength Dependent Responsivity***		dB	+/-0.4
Max. Dark Current (@ 70 °C, -5 V bias)		nA	2	
	1%		1000	
	2%		500	
	Max. Optical Power	5%	mW	200
		10%		100
50%			20	
Max. power on PD chip			mW	10
Max. Linearity optical power from -40dBm to +10dBm on PD(-5 V bias)		%	5	
Fiber Type			SMF-28 Ultra fiber	
Operating Temperature		°C	-5 to +75	
Storage Temperature		°C	-40 to +85	
Soldering Temperature (Over 2 mm from head, less than 5 s)		°C	≤ 260	

*IL is 0.5 dB higher, RL is 5 dB lower for each connector added.

**Directivity= $-10 \cdot \log[\text{responsivity}(\text{Output})/\text{responsivity}(\text{Input})]$

***WDR= $10 \cdot \log[\text{Responsivity}(1520) / \text{Responsivity}(1570)]$

Package Dimensions



Ordering Information

UTPD-①-②②-③③-④-⑤⑤-⑥-⑦

①: Center Wavelength

E - 1528 - 1567 nm

②②: Tap Ratio

01 - 1%

02 - 2%

05 - 5%

10 - 10%

50 - 50%

③③: Bandwidth

20 - 2.0 G

④: Connector Type

1 - FC/UPC

2 - FC/APC

3 - SC/UPC

4 - SC/APC

N - None

S - Specify

⑤⑤: Fiber Type

B - 250 μm bare fiber

⑥: Fiber Length

1 - 1.0 m

S - Specify

⑦: Package Type

2 - Mini size package



日本デバイス株式会社 E-mail sales@j-device.com

www.j-device.com

Tel 03-6262-3424 Fax 03-6800-5883