

## InGaAs PIN Photodiode Module With Pigtail Connection

Data Sheet

OPD1151-FC

### Features

- Hermetically sealed
- Low dark current: 1nA
- High Quantum Efficiency: 0.8A/W
- Singlemode FC/PC connector
- Spectral Response Range: 1100nm to 1630nm
- Operating Temperature: 0° ~ 75° C

### Applications

- Telecom and datacom networking systems
- Optical transmission systems: SONET OC-3/ STM-1
- Subscriber loop
- LAN

### Description

The OPD1151-FC is a hermetically sealed InGaAs PIN photodiode module in a small coaxial type package with FC/PC connector.

The photodiode is designed for use in data communications systems and telecommunications systems over singlemode fiber, and can operate in temperatures of 0° C to 75° C. The photodiode module is designed for data transmission with a minimum bandwidth of 1 GHz between spectral bandwidths of 1100 to 1630 nm.

**Safety**

Device contains gallium arsenide (GaAs) which can be hazardous to your health. Please embrace all customary precautions and discretion while handling this device. Observe governmental laws and regulations when discarding this device.

**Performance Specifications**

**Absolute Maximum Ratings**

Stresses in excess of the absolute maximum ratings can cause damage to the optical device. Operations of the optical device are suggested to remain within the recommended operating conditions. Exposure to the absolute maximum ratings for extended periods can adversely affect device reliability.

Parameter	Symbol	Value	Unit
Storage Temperature	$T_{stg}$	-40 to +85	°C
Operating Case Temperature	$T_{op}$	0 to +75	°C
Peak Optical Output Power	$P_o$	5	mW
PD Reverse Voltage	$V_{RD}$	20	V
PD Forward Current	$I_{FD}$	10	mA
Soldering Temperature	$S_{temp}$	260	°C
Soldering Time	$S_{time}$	10	sec

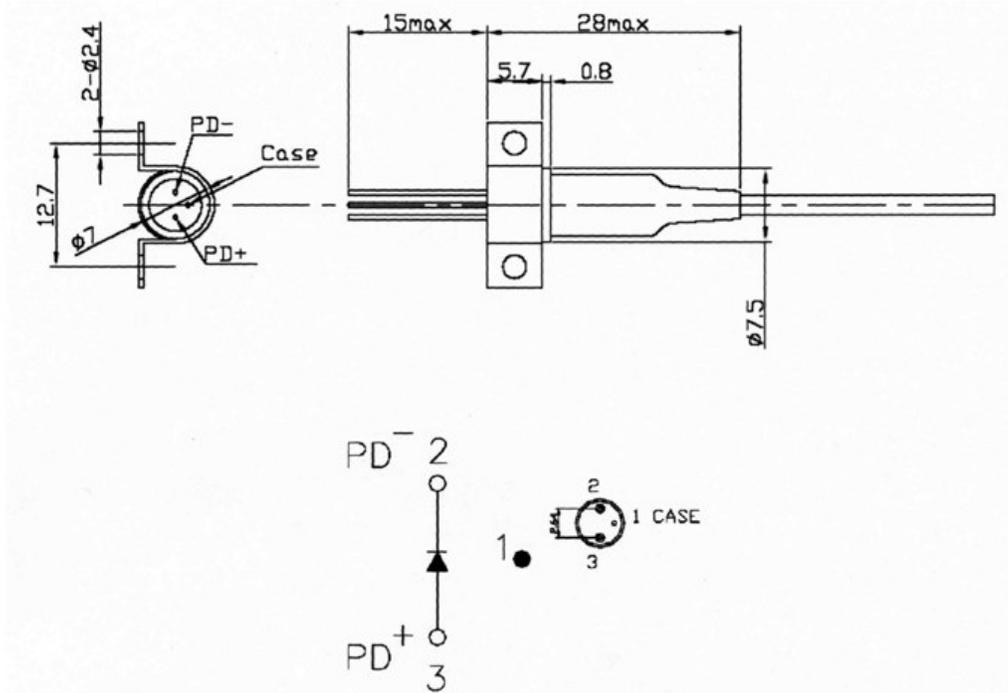
**Electrical and Optical Characteristics ( $T_C=25^\circ\text{C}$  unless otherwise noted)**

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Wavelength	$\lambda$		1100	1310	1630	nm
Bandwidth	BW	$V_R = 5V$	1	-	-	GHz
Responsivity	R	1310 nm, $V_R = 5V$ , $P_{IN} = 100 \mu W$	0.8	0.85	-	A/W
Dark Current	$I_d$	$V_R = 5V$	-	-	1	nA
Capacitance	C	$V_R = 5V$	-	0.75	0.9	pF
Rise/Fall Time	$T_R/T_F$	$V_R = 5V$ , 20% ~ 80%	-	-	300	ps

**Physical Characteristics**

**Outline Diagram**

Dimensions for the device package are given in millimeters.



**Additional Information**

**Contact**

For additional information, product specifications, or information about Optocom:

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