

## InGaAs APD FOR OTDR

### Features:

- ◆ Small Dark Current: 1~10 nA
- ◆ Small Terminal Capacitance:  $C_T = 0.35$  pF at 0.9 VBR
- ◆ High Speed Response : $f_c = 2$  GHz at  $M = 10$
- ◆ Detecting Area Size: 50 $\mu$ m
- ◆ Various connectors and different flange options

### Applications:

- ◆ OTDR System
- ◆ Optical fiber communications
- ◆ Distance measurement

### Absolute Maximum Ratings:

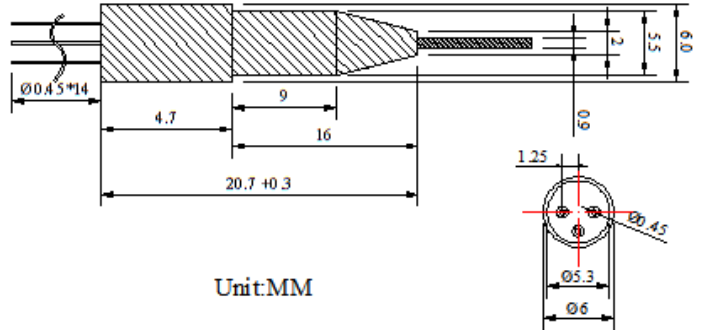
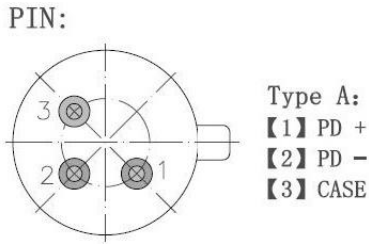
Parameter	Symbol	Min.	Typ.	Max.	Unit
Forward Current	IF	-	-	10	mA
Reverse Current	IR	-	-	0.5	mA
Operating Case Temp.	TC	-40	-	85	°C
Storage Temperature	TSTG	-10	-	60	°C
Lead Soldering Temp.	TSOL	-	-	260(10s)	°C
Relative Humidity	RH	0	-	85	%

### Electrical / Optical Characteristics:

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Reverse Breakdown Voltage	VBR	40		50	V	ID = 100 $\mu$ A
Temperature Coefficient of Reverse Breakdown Voltage <sup>1</sup>	$\delta$	-	0.1	-	V/°C	-
Multiplied Dark Current	IDM	-	5	10	nA	M = 10 to 40
Terminal Capacitance	Ct	-	0.35	-	pF	VR = VBR x 0.9, f = 1 MHz
Cut-off Frequency	fC	2	-	-	GHz	M = 10
Responsivity	S	0.85	0.90	-	A/W	$\lambda = 1310$ nm, M = 1
		0.90	0.95	-		$\lambda = 1550$ nm, M = 1
Optical Return Loss	ORL	30	40	-	dB	SMF

**Pin Assignment:**

**Drawing**



**Nomenclature:**

OSMPDP —       
 A B C D E

<b>A</b>	<b>Bandwidth</b>	3≤3Gb/s			
<b>B</b>	<b>Connector</b>	F=FC/UPC	FA=FC/APC	S=SC/UPC	SA=SC/APC
		L=LC/PC	LA=LC/APC	N=None	
<b>C</b>	<b>Multifactor</b>	M2=20		M4=40	
<b>D</b>	<b>Fiber Type</b>	A=9/125/900um	B=9/125/250um	C=50/125/900um	D=62.5/125/900um
<b>E</b>	<b>Fiber Length</b>	BLANK=100cm			XXX=000

**Precaution:**

- (1) The modules should be handled in the same manner as ordinary semiconductor devices to prevent the electro-static damages. For safe keeping and carrying, the modules should be packaged with ESD proof material. To assemble the modules on PCB, the workbench, the soldering iron and the human body should be grounded.
- (2) Please pay special attention to the atmosphere condition because the dew on the module may cause some electrical damages.
- (3) Under such a strong vibration environment as in automobile, the performance and reliability are not guaranteed.

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