

## InGaAs Avalanche PHOTODIODE with Single-Mode Pigtail

### FEATURES

- ✧ Data Rate up to 2.7 Gbps
- ✧ 0.9 A/W Typical Responsivity
- ✧ Breakdown voltage: 40V Typical
- ✧ Wide Wavelength Band: 1260 nm to 1620 nm
- ✧ Case Operating Temperature: -40 to 85°C
- ✧ Coaxial Module with 9/125 μm Single-Mode Fiber

### APPLICATIONS

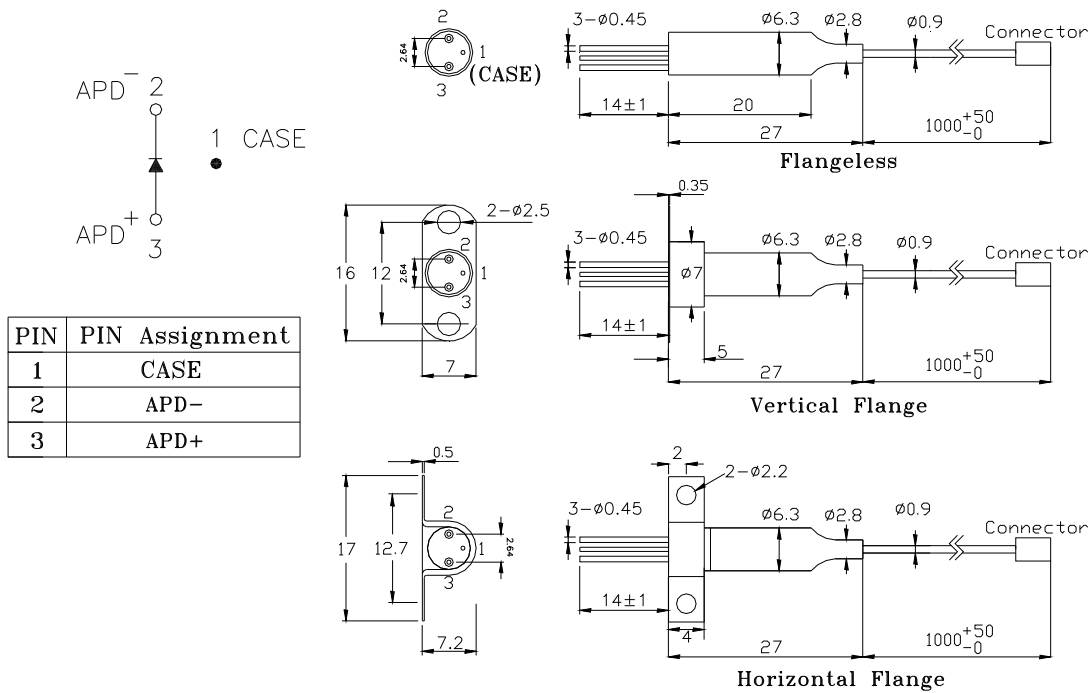
Receiver supports long distance fiber-optics communication systems with performance up to 2.7 Gb/s data rate, -40 to 85 °C operating temperature.

ELECTRICAL AND OPTICAL CHARACTERISTICS (Tc=25°C)						
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
	Detection Range	$\lambda$	1260	-	1620	nm
VBR	Breakdown Voltage	Idark=10μA	35		47	V
VOP	Operating Voltage	Best Sensitivity		VBR-3	VBR-2	V
dVBR/dT	Temperature Coefficient of Breakdown Voltage		0.06	0.07	0.10	V/°C
Idark	Dark Current	VR =0.9 VBR		80	100	nA
R	Responsivity	$\lambda=1550\text{nm}$ , M=1	0.85			A/W
C	Capacitance	VR =0.9 VBR, f=1MHz		0.5	0.8	pF
ORL	Optical Return Loss	Vop, $\lambda= 1550 \text{ nm}$	40			dB
BW	Bandwidth	RL=50 Ω, -3 dB, M=10	2.5	3		GHz

Absolute Maximum Ratings (Tc=25 °C)				
Symbol	Parameter	Minimum	Maximum	Unit
IF	APD Forward Current		2	mA
IR	APD Reverse Current		3	mA
VR	APD Reverse Voltage		VBR	V
T <sub>opr</sub>	Operating Temperature	-40	85	°C
T <sub>stg</sub>	Storage Temperature	-40	85	°C

Stress in excess of the absolute Maximum Ratings may cause permanent damage to the device.

MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT



**Note:** 1. Specifications subject to change without notice.  
2. Other PIN assignment is available upon request.

ORDER INFORMATION

Part No.: A P D - 1 3  0 -

Code	Fiber
0	50/125 $\mu\text{m}$
1	9/125 $\mu\text{m}$

Code	Flange
V	Vertical
H	Horizontal
X	No Flange

Code	Connector Type
S	SC/PC
F	FC/PC
T	ST/PC
L	LC/PC
X	No Connector
SA	SC/APC
FA	FC/APC
LA	LC/APC

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Revision History

Version	Subject	Release Date
1.0	Initial datasheet	2005/3/1