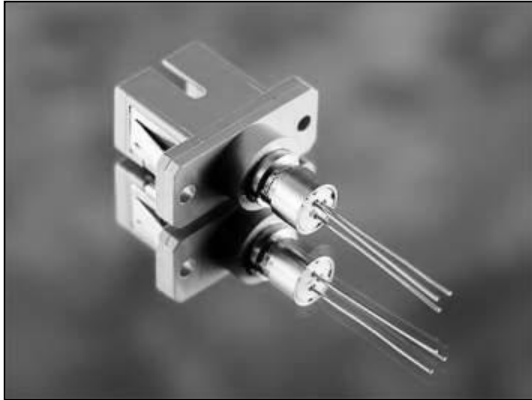


RPD3000-SA-xx-H-B

**Description**

The RPD3000-SA-xx-H-B series of Photo-detector are well suited for low-cost, receptacle packages and high-performance in optical networking applications.

The devices feature low capacitance, high linearity, excellent frequency response up to 3000MHz, a wide operating temperature range, and high responsivity. The RPD3000 is also designed to use in a variety of optical network applications including CATV forward/return Path, PON network, QAM system, EDFA monitors and FTTH applications.

Features

- ❑ High responsivity @ 1310/1550nm
- ❑ Low capacitance
- ❑ 3000MHz frequency response
- ❑ High responsivity :
 - >= 0.80 @ 1310nm
 - >= 0.85 @ 1550nm

Applications

- ❑ CATV forward/return Path
- ❑ PON network
- ❑ QAM system
- ❑ EDFA monitors
- ❑ FTTC/FTTH networks





RPD3000-SA-xx-H-B

Absolute Maximum Ratings

Exceeding the conditions specified below may result in permanent damage to the pin module.

Parameter	Symbol	Min	Max	Unit
Operating Case Temperature	Top	-40	85	°C
Storage Temperature	Tstg	-40	100	°C
Saturation Input Power	Ps	--	10	mW
Forward Current	If	--	10	mA
Reverse Bias	Vr	--	30	V

Electrical/Optical Characteristics

Parameters are at 25°C unless otherwise noted.

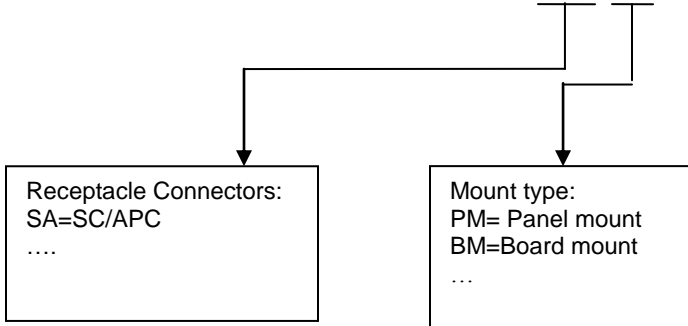
Parameter	Symbol	Min	Typ	Max	Unit
Active Diameter	Da		40	80	um
Detection Wavelength range	.	1100	--	1650	nm
Responsivity	R	0.80@1310nm 0.85@1550nm		--	mA/mW mA/mW
Frequency Bandwidth	Fb	1	--	3000	MHz
Frequency Response	Fr	--	+/- 0.5	--	dB
Distortion: *					
2 nd Order Intermodulation	IMD2	--	≧ - 75	--	dBc
3 rd Order Intermodulation	IMD3	--	≧ - 85	--	dBc
Back Reflection	RL	--	--	-40	dB
Dark Current	I _D	--	0.1	1	nA
Capacitance	C	--	0.6	1	pF

* 1310nm Two tone test, OMI= 40% and total received power is 0 dBm. The worst case of distortion measured at 345MHz, 450MHz, 600MHz, 850MHz, 1000MHz, 1780MHz and 1950MHz.

RPD3000-SA-xx-H-B

Ordering options:

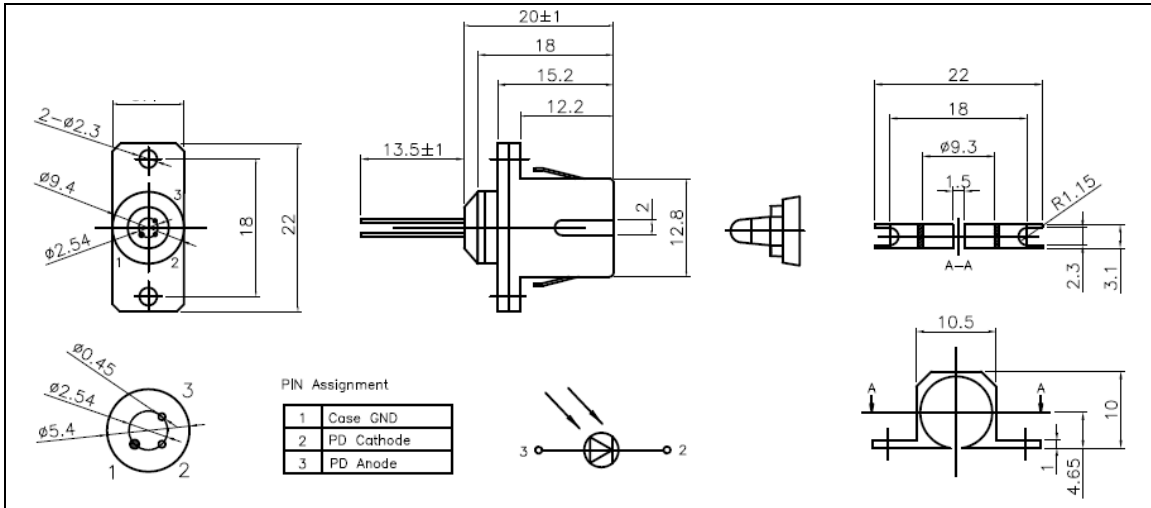
RPD3000-SA-xx-H-B



Outline dimensions:

Unit: mm

Tolerance: +/-0.3 mm

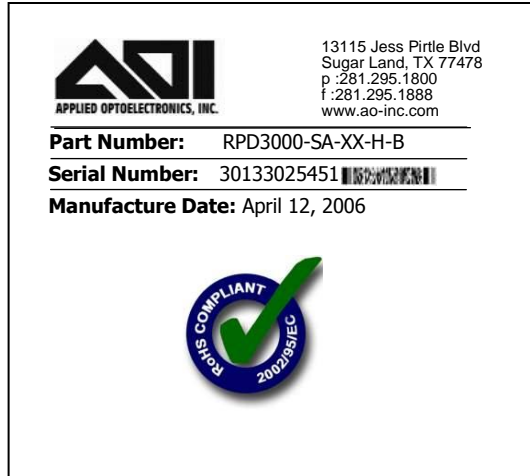




RPD3000-SA-xx-H-B

Shipping/Packing Requirements:

Place the label as shown below on the exterior of all part Boxes, and Bags indicating:



Where XX could be PM or BM as customer order.

Place the test report as shown below on the interior of all part Bags indicating (for PM and BM respectively):

AOI P/N:RPD3000-SA-PM-H-B
APPLIED OPTOELECTRONICS, INC. S/N: 31312151952

Responsivity@ 1310nm(mA/mW)	0.89
Optical RL@ 1310nm(dB)	51
Optical RL@ 1550nm(dB)	43
IMD2(dBc)	75
IMD3(dBc)	85

Pin Assignment:

AOI P/N:RPD3000-SA-BM-H-B
APPLIED OPTOELECTRONICS, INC. S/N:31312151951

Responsivity@ 1310nm(mA/mW)	0.92
Optical RL@ 1310nm(dB)	56
Optical RL@ 1550nm(dB)	51
IMD2(dBc)	≥75
IMD3(dBc)	≥85

Pin Assignment: