

Plug-out PD detector

Product model	Product code	Product description
RSA-W-70B(Ordinary shrapnel)	H020040	BW: 2GHz,PD70um,coaxial,SC/APC connector
RSA-W-70B-A(PIN)	H020046	BW: 2GHz,PD70um,coaxial,SC/APC connector
RSA-W-70B-C(ϕ 1.0 cylindrical foot)	H020047	BW: 2GHz,PD70um,coaxial,SC/APC connector

Features

- ❖ Low dark current
- ❖ High linearity
- ❖ High reliability
- ❖ Compliant with RoHS standard

Application

- ❖ Apply to various digital and analog fiber-optic transmission systems.
- ❖ Can be used for fiber-optic CATV receiver.

1. Absolute Maximum ratings

Parameter	Symbol	Min	Max	Unit
Saturation power	Ps	—	2	mW
Forward current	If	—	10	mA
Reverse voltage	Vr	—	20	V
Operating temperature	Top	-40	+85	°C
Storage temperature	Tstg	-40	+120	°C
Solder Temperature	TS	—	260	°C
Soldering time	—	—	10	s

2. Recommended Operating Conditions

Parameter	Symbol	Min	Type	Max	Unit
Case Operating Temperature Range	Tc	-40	+25	+85	°C
Operating voltage	Vcc	—	-12	—	V

3. Optical and Electrical Characteristics(Tc=25°C)

Parameter	Symbol	Test condition	Min.	Type	Max.	Unit
Optical Wavelength Range	λ		1100		1650	nm
Spectral Responsivity	R	VR= 5V λ =1310nm	0.85	0.88	—	A/W
		VR= 5V λ =1550nm	0.9	0.95	—	A/W
Return loss	RL	λ =1310nm	—	45	—	dB
		λ =1550nm	—	40	—	dB
Dark Current	Id	VR= 5V 25°C	—	—	1	nA
Capacitance	C	VR= 5V F=1MHz	—	0.5	0.7	pF
-3dB Bandwidth	BW	RL=50 Ω	2	—	—	GHz
Breakdown Reverse Voltage	VBR	IR=10uA	35	—	—	V
Gain flatness	f1	47MHz~862MHz		$\pm$ 0.5		dB
Second Order Inter-Modulation Distortion	IMD2	Note 1	—	-70	—	dBc
Third Order Inter-Modulation Distortion	IMD3	Note 2	—	-80	—	dBc
ESD	—		300	—	—	V

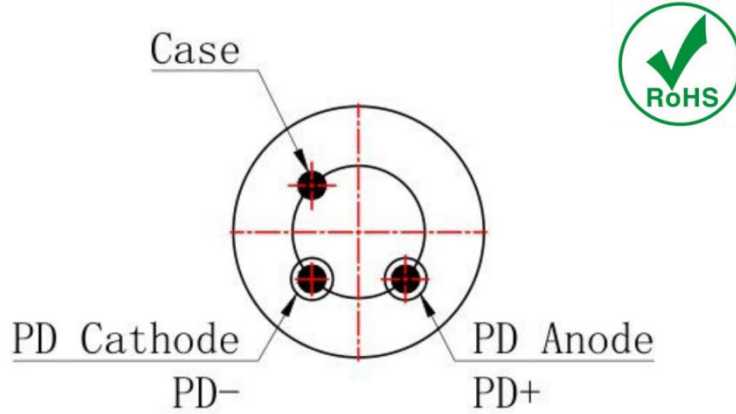
Note1: $P=135\text{MHz}$, $fQ=189.25\text{MHz}$, $PP=0.5\text{mW}$, $PQ=0.5\text{mW}$, $P+fQ=324.25\text{MHz}$

Note1: dual tone $fP=135\text{mhz}$, $fQ=189.25\text{mhz}$ testing, $Pp=0.5\text{mW}$, $Pq=0.5\text{mW}$, testing point is $fP+fQ=324.25\text{MHz}$

Note 2: $fP=326.25\text{MHz}$, $fQ=333.25\text{MHz}$, $fR=335.25.25\text{MHz}$, $PP=0.33\text{mW}$, $PQ=0.33\text{mW}$, $PR=0.33\text{mW}$, $P+fQ-fR=324.25\text{MHz}$

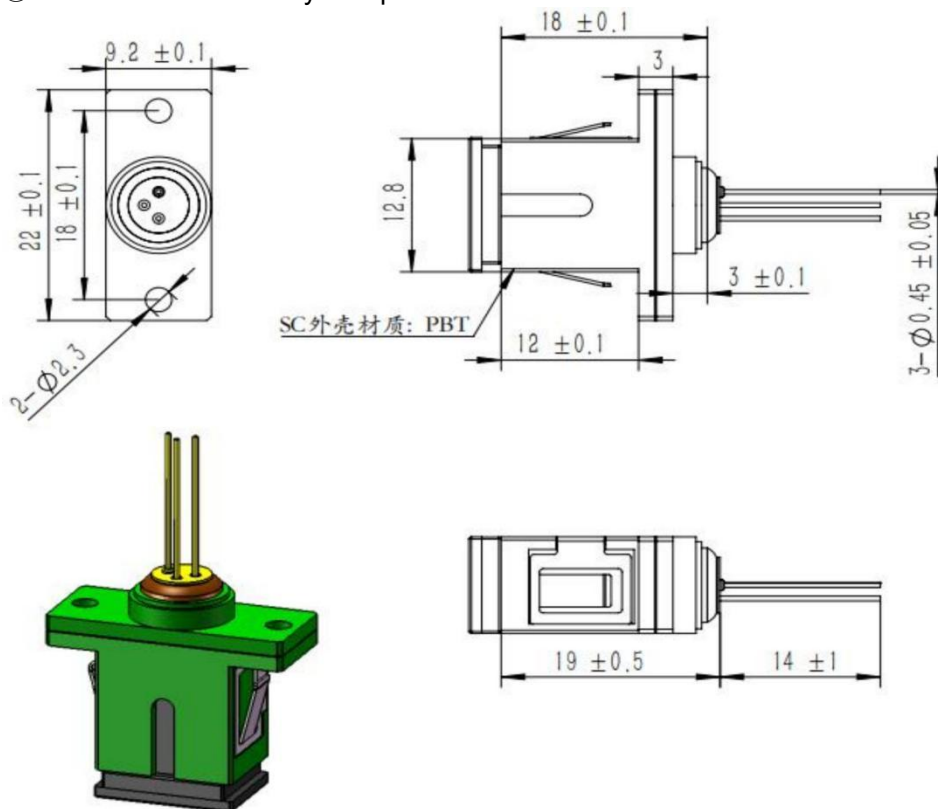
Note2 : triple tone $fP=326.25\text{mhz}$, $fQ=333.25\text{mhz}$, $fR=335.25\text{mhz}$, $PP=0.33\text{mW}$, $Pq=0.33\text{mW}$, $Pr=0.33\text{mW}$, testing point is $fP+fQ-fR=324.25\text{MHz}$

4. Pin Description and Package Dimensions PIN Assignment (Bottom View)

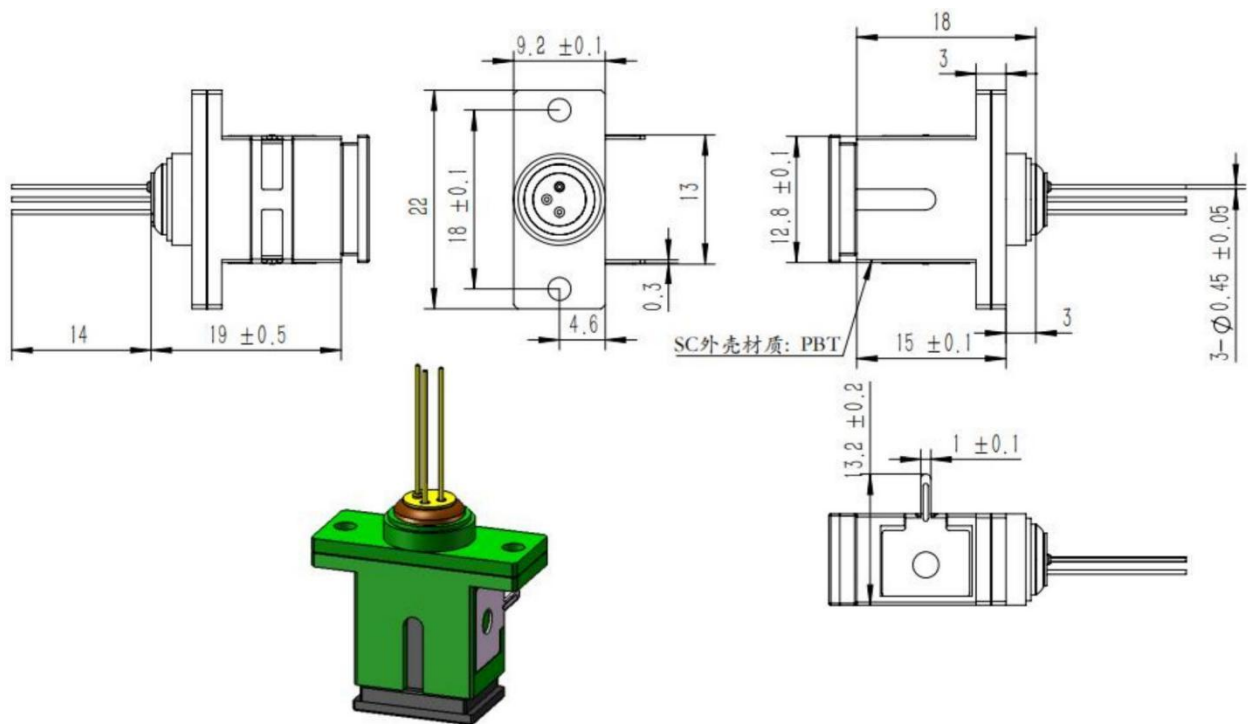


5. Package Dimensions

①RSA-W-70B (Ordinary shrapnel)



②RSA-W-70B-A (PIN)



③RSA-W-70B-C (φ1.0 cylindrical foot)

