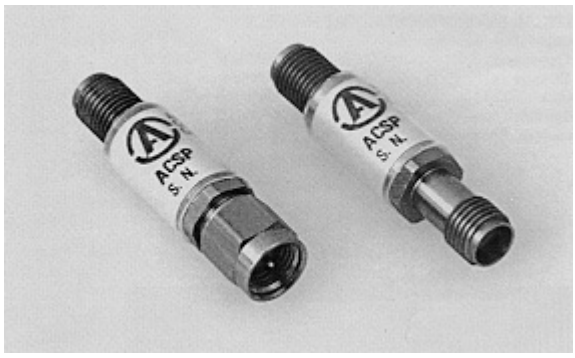
BIASED COAXIAL SCHOTTKY DETECTORS
(WITH INTERNAL PADS OR RESISTORS)

This family of padded input detectors allows for higher input power range and better VSWR than pure biased schottky units. They come in a variety of package styles. Module versions for microstrip or stripline applications are also available.



Each detector model contains:

- Input Impedance Matching
- DC return
- RF bypass capacitor
- Detector diode

Applications:

- Transmitter Monitoring
- Radar Equipment
- Missile Guidance Systems
- Input to Low-Noise Amplifiers
- Broadband Or Narrowband ECM Receivers
- Power and Signal Monitors
- Doppler Radar and Beacon Receivers
- Matched units available for Multi-channel Receivers, Amplitude Comparator Systems and Discriminators

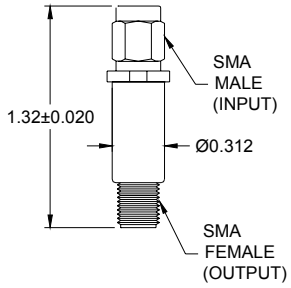
Frequency Range (GHz)	Part (1) Number	Minimum(2) Sensitivity K (mV/mW)	Flatness vs Frequency (+/-dB)	Typical (3) VSWR	Nominal (4) Video Capacitance (pF)	Standard Case Styles	Optional Case Styles
0.005 - 0.05	**ACSP2531N**	750	0.1	2.0:1	1000	C3	C8,C15
0.05 - 0.5	**ACSP2543N**	1600	0.3	2.0:1	270	C3	C8,C15
0.001 - 1	**ACSP2609N**	1800	0.2	2.0:1	470	C3	C8,C15
0.1 - 1	**ACSP2761N**	1200	0.2	2.0:1	1000	C3	C8,C15
0.01 - 4	**ACSP2755N**	1800	0.4	2.0:1	270	C3	C8,C15
0.01 - 4	**ACSP2655N**	600	0.4	1.25:1	270	C3	C8,C15
4 - 8	**ACSP2602N**	600	0.3	1.5:1	10	C3	C8,C15,C32
8 - 12	**ACSP2667N**	750	0.5	1.9:1	10	C3	C8,C15,C32
0.01 - 20	**ACSP2644N**	500	1.0	1.8:1	12	C3	C15,C32
0.01 - 20	**ACSP2643N**	900	1.5	2.8:1	75	C3	C15,C32

NOTES:

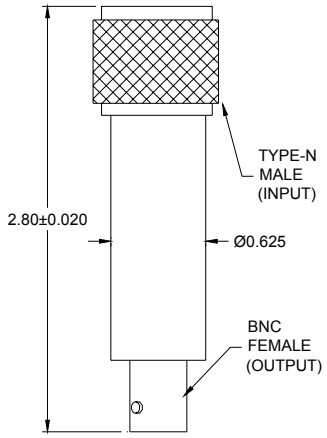
1) Standard output polarity is negative. If positive output is required, substitute “P” for “N” in part number.
2) Measured into an open circuit load (>10k ohm).
3) VSWR measured at or below -20dBm input power level.
4) Video capacitance is used for RF bypass. This value can be changed if required for video response time or other considerations. Contact the factory if value other than those shown are needed.
5) Standard bias is 100 microamps.
6) Zero bias schottky versions are available for most of listed biased schottky models with only minor differences in specifications.
    a. The zero bias schottky has an impedance of several thousand ohms.
    b. Zero bias schottky detectors exhibit less sensitive TSS due to the high diode impedance (typically a 3dB reduction).
    c. The temperature performance of the zero bias schottky is poor when operating at low input power levels. This difference becomes small at high levels (above 0dBm input power). The part number of zero bias versions includes a “Z” following the polarity indicator.

ENVIRONMENTAL SPECIFICATIONS:
MIL-E-5400, MIL-STD-202, MIL-E-16400
Operating Temp: -65°C to +125°C
Storage Temp: -65°C to +150°C
Humidity: MIL-STD-202F, M103, Cond B
Shock: MIL-STD-202F, M213, Cond B
Altitude: MIL-STD-202F, M105, Cond B
Vibration : MIL-STD-202F, M204, Cond B
Thermal Shock: MIL-STD-202F, M107, Cond A
Temperature Cycle: MIL-STD-202F, M105C, Cond D
Maximum Input Power: +20dBm

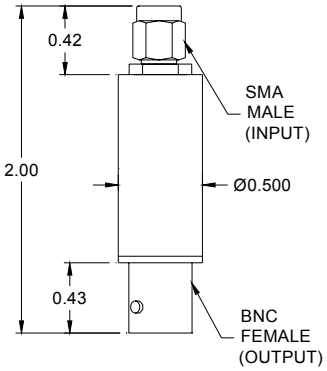
SCREENING :
Standard Screening:
Internal Visual per MIL-STD-883, Method 2017
Temperature Cycle: -65°C to +100°C, 10 cycles
Optional High-Rel Screening (Ref MIL-PRF-38534):
Internal Visual per MIL-STD-883, Method 2017
Stabilization Bake per MIL-STD-883, Method 1008
Temperature Cycle per MIL-STD-883, Method 1010
Constant Acceleration per MIL-STD-883, Method 2001
Burn-in per MIL-STD-883, Method 1015
Leak Test per MIL-STD-883, Method 1014
External Visual per MIL-STD-883, Method 2009



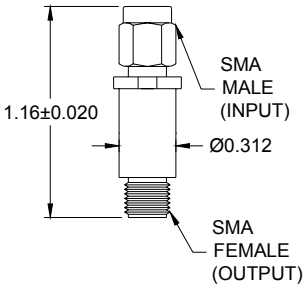
CASE STYLE C3



CASE STYLE C8



CASE STYLE C15



CASE STYLE C32

Part Number Ordering Information:

Example: ACSP2667NZC3X20
ACSP2667: Biased Coaxial Schottky Detector (With internal pad), 8 - 12GHz
N: Negative output polarity
Z: Zero bias version (omit for biased version)
C3: Package type
X: No video protection (omit for inclusion of video protection)
20: 20pF custom output capacitance (omit for standard value)

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