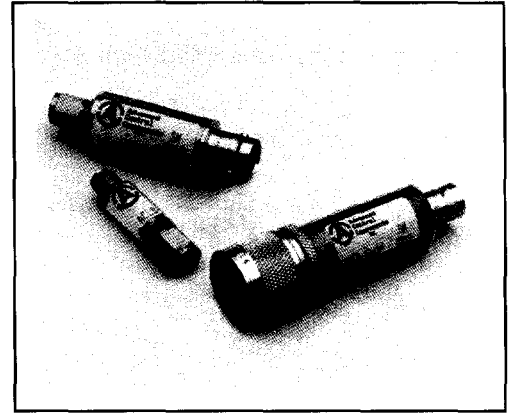


BIASED COAXIAL SCHOTTKY DETECTORS

The ACSP series of high sensitivity detectors exhibit superior electrical and environmental reliability characteristics. They contain hermetically sealed modules, internal RF matching, DC return, and RF bypass capacitor. In addition, the video port is protected from static or transient voltages. This feature prevents damage due to handling (usually static) or system video transients. Models may be chosen for broadband RF performance or for optimized narrowbands.



Each Detector Model Contains:

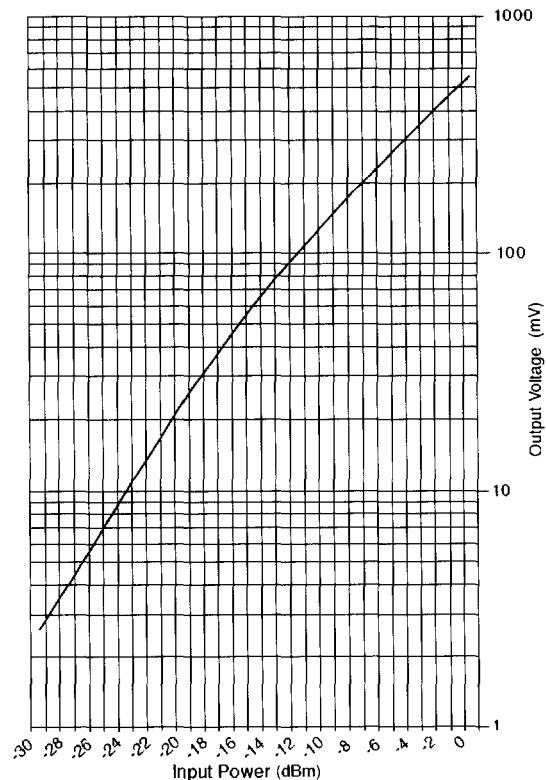
- | | |
|-----------------------------|------------------------|
| 1. Input Impedance Matching | 3. RF Bypass Capacitor |
| 2. DC Return | 4. Detector Diode |

APPLICATIONS

- Broadband or Narrowband ECM Receivers
- Power and Signal Monitors
- Doppler Radar and Beacon Receivers
- Missile Guidance Systems
- Input to low Noise Video Amplifiers

In addition, matched units may be used in Multichannel Receivers, Amplitude Comparator Systems, Discriminators, and Simulators.

SCHOTTKY DETECTOR PERFORMANCE



ACSP-2502NC3 TRANSFER CHARACTERISTIC

BIASED SCHOTTKY DETECTOR ELECTRICAL SPECIFICATIONS

Model Number	Frequency Range (GHz)	Minimum Sensitivity K (mV/mW)	Typical TSS (dBm)	Flatness (± dB)	Typical Output Capacitance (pF)	Standard Case Styles	Optional Case Styles
ACSP-2517NC3	0.1-1.0	2000	-52	0.28	270	C3	C8,C15
ACSP-2538NC3	0.1-2.0	2000	-52	0.3	270	C3	C8,C15
ACSP-2501NC3	0.5-2.0	2000	-53	0.3	75	C3	C8,C15
ACSP-2630NC3	1.0-4.0	2000	-53	0.3	39	C3	C8,C15
ACSP-2502NC3	2.0-4.0	2000	-53	0.2	20	C3	C8,C15
ACSP-2546NC3	2.0-6.0	2000	-53	0.3	10	C3	C8,C15
ACSP-2656NC3	1.0-6.0	2000	-53	0.5	12	C3	C8,C15
ACSP-2503NC3	4.0-8.0	2000	-53	0.3	10	C3	C8,C15
ACSP-2658NC3	0.5-12.0	2000	-52	1.3	75	C3	C8,C15
ACSP-2762NC3	1.0-12.0	2000	-53	1.3	20	C3	C8,C15
ACSP-2507NC3	2.0-12.0	2000	-53	1.1	10	C3	C8,C15
ACSP-2504NC3	8.0-12.0	2100	-53	0.4	10	C3	C8,C15
ACSP-2572NC3	0.5-18.0	1800	-52	1.5	12	C3	C15
ACSP-2759NC32	1.0-18.0	1800	-52	0.9	20	C32	C15,C3
ACSP-2506NC3	2.0-18.0	2000	-52	1.5	10	C3	C15
ACSP-2523NC3	6.0-18.0	2000	-52	1.0	10	C3	C15
ACSP-2505NC3	12.0-18.0	2100	-53	0.6	10	C3	C15

NOTES:

- Model number modification apply to: (a) Output polarity (N = negative, P = Positive)
(b) Special output capacitance value (c) Case style option

Example: 20pF RF Bypass Capacitor

ACSP-2546PC1520
Positive Polarity — Case Style Option

- Any model number can be supplied as a "zero bias" version. Insert a "Z" after the polarity indicator.

Example: ACSP-2546PZC1520

The zero bias Schottky is a very high impedance diode (several thousand Ohms) and the TSS numbers will degrade significantly from those shown. Temperature variation is also very extreme with the zero bias.

- TSS is measured using a 2 MHz video bandwidth and an amplifier with 2 dB noise figure (NF)
- Standard bias is 100 microamps

TYPICAL ENVIRONMENTAL CAPABILITIES:

Temperature Range: Operating -65°C to +125°C
Storage -65°C to +150°C Shock: 50 g's, 11 msec

Vibration: 20 g's, 10 to 2000 Hz

Constant Acceleration: 20,000 g's, Y₁ Plane