

Zero Bias Schottky Detector Diodes

The SemiGen SZB900 Series of Zero Bias Schottky Detector diodes are designed for use in video detectors and power monitors eliminating the need to provide external DC bias to the diode. The choice of barrier metal and processes provide a broad selection of video impedance.

Features:

- Low Junction Capacitance
- High Voltage Sensitivity
- Uniform R_v Characteristics
- High Sensitivity Without Bias

Applications:

The Zero Bias Schottky Detector diodes are ideally suited for use in waveguide, coaxial and stripline applications through K-band.

Packages

Chip, Ceramic, Glass, Beam Lead

Maximum Ratings

Operating Temperature -55°C to +150°C
 Storage Temperature -65°C to +200°C
 Power Dissipation @25°C 100mW
 (derate linearly to zero at 150°C)

| Electrical Characteristics | | | | | |
|--|-------------------------------|--|-----------------------------|--|-------------|
| Breakdown Voltage @100 μ A MIN (V) | Forward Voltage @1 mA MAX (V) | Junction Capacitance @0 Vdc 1 MHz TYP (pF) | Video Resistance TYP (Ohms) | Tangential Signal Sensitivity TYP (dB) | Part Number |
| 3.0 | 0.300 | 0.20 | 3500 | -42 | SZB900 |
| 3.0 | 0.300 | 0.30 | 3500 | -45 | SZB901 |
| 3.0 | 0.300 | 0.35 | 3500 | -47 | SZB902 |
| 3.0 | 0.300 | 0.40 | 3500 | -50 | SZB903 |
| 4.0 | 0.300 | 0.20 | 5000 | -42 | SZB904 |
| 4.0 | 0.300 | 0.30 | 5000 | -45 | SZB905 |
| 4.0 | 0.300 | 0.35 | 5000 | -47 | SZB906 |
| 4.0 | 0.300 | 0.40 | 5000 | -50 | SZB907 |
| 5.0 | 0.300 | 0.20 | 8000 | -50 | SZB908 |
| 5.0 | 0.300 | 0.30 | 8000 | -55 | SZB909 |
| 5.0 | 0.300 | 0.40 | 8000 | -58 | SZB910 |

