**ZERO BIAS SCHOTTKY DETECTORS**
**MODELS 109A, 109B & 109S**
**10 MHz-18.5 GHz**

**SPECIFICATIONS**

<table>
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<tr>
<th>MODEL</th>
<th>FREQUENCY RANGE</th>
<th>FREQUENCY RESPONSE</th>
<th>MAXIMUM VSWR</th>
<th>OUTPUT CONNECTOR</th>
<th>DIMENSIONS</th>
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<tr>
<td>109A</td>
<td>10 MHz - 18.5 GHz</td>
<td>±0.3 dB to 12.4 GHz ±0.6 dB to 18.5 GHz</td>
<td>1.15 to 4 GHz 1.3 to 15 GHz 1.4 to 18.5 GHz</td>
<td>SMA Female</td>
<td>2.24 in. x 0.83 in. dia.</td>
</tr>
<tr>
<td>109B</td>
<td>10 MHz - 18.5 GHz</td>
<td>±0.3 dB to 12.4 GHz ±0.6 dB to 18.5 GHz</td>
<td>1.15 to 4 GHz 1.3 to 15 GHz 1.4 to 18.5 GHz</td>
<td>BNC Female</td>
<td>2.51 in. x 0.83 in. dia.</td>
</tr>
<tr>
<td>109S</td>
<td>10 MHz - 18.5 GHz</td>
<td>±0.3 dB to 12.4 GHz ±0.6 dB to 18.5 GHz</td>
<td>1.15 to 4 GHz 1.3 to 15 GHz 1.4 to 18.5 GHz</td>
<td>SMC Jack</td>
<td>2.33 in. x 0.83 in. dia.</td>
</tr>
</tbody>
</table>

- **LOW LEVEL SENSITIVITY**: 0.5 mV/µW
- **OUTPUT CAPACITANCE**: 30 pF
- **MAXIMUM INPUT**: 100 mW
- **OPERATING TEMPERATURE**: -54º to +100º C
- **OUTPUT POLARITY**: Negative
  For positive output, add “P” to end of Model Number.
- **INPUT CONNECTORS**: N Male
TYPICAL OUTPUT VOLTAGE vs. INPUT POWER CURVES FOR VARIOUS $R_L/R_V$ RATIOS at $T_a=20^\circ$C

Curves are normalized to $R_L=\infty$ and $T_a=20^\circ$C, $R_V$ corresponds to the load that drops the open circuit output voltage in half (3dB) at 20°C.

TYPICAL LOW LEVEL ($Pin \leq -20$ dBm) OUTPUT RESPONSE vs. TEMPERATURE CURVES FOR VARIOUS $R_L/R_V$ RATIOS