**Product Features**

<table>
<thead>
<tr>
<th>Case Size</th>
<th>Std. Resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>50Ω</td>
</tr>
</tbody>
</table>

**Specifications**

- **Operating Frequency**: DC to 67 GHz
- **Operating Temperature Range**: -55°C to +150°C
- **Resistive Material**: Tantalum Nitride (TaN)
- **Temperature Coefficient**: ±150 ppm/°C standard
- **Resistance Tolerance**: ±1% standard
- **Substrate**: Alumina (Al₂O₃), other substrates available
- **Metallization**: A = Tantalum/Palladium/Gold (TaN/Pd/Au), R = Titanium/Platinum/Gold (Ti/Pt/Au)
- **Power Derating**: Full power up to 70°C, Derated linearly to zero power at 150°C

*All PPI Thin Film parts are Non-Magnetic*

**Mechanical Dimensions**

- L = 0.020” ± 0.002” (0.508mm ± 0.051mm)
- W = 0.010” ± 0.001” (0.254mm ± 0.051mm)
- H = 0.010” ± 0.001” (0.254mm ± 0.025mm)

**Part Numbering**

- R 35 - 2010 BB 50R00 F R 1 Q E
- **Material**: 35 = Alumina
- **Resistance Value**: 50Ω = 50R00
- **Tolerance**: F = ±1%
- **Metallization**: R = For Soldering; A = For wirebonding
- **Power Handling**: E = 100mW
- **Style**: 1
- **TCR**: Q = ±150ppm/°C

*Digits 1-4 are significant; Digit 5 is number of zeros to follow
Best for wire bonding or surface mount applications
Flip Chip Configuration compatible*
--- Performance Curves - S21 and S11

--- Simulated Test Conditions / Pad Dimensions / Dielectric
Modelithics calculated data for 50 Ohm and 100 Ohm resistors from 0.1 to 67.0 GHz on 4 mil Rogers 4350B, Dielectric constant = 4.15. The pad dimensions used to develop the datasheet plots were: Length = 4.0 (0.102), Width = 10.0 (0.254), Gap = 13.0 (0.330). Units in mil (mm). Reference planes were at the pad edges.

--- Packaging
Parts are available in Waffle Packs and Tape & Reel. Contact PPI for additional packaging options.

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