**R35-2010BB50R00Fx1QE**

**Product Features**

<table>
<thead>
<tr>
<th>Case Size</th>
<th>Std. Resistance</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 mils</td>
<td>50Ω</td>
<td>100 mW</td>
</tr>
</tbody>
</table>

**Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Frequency</td>
<td>DC to 48 GHz</td>
</tr>
<tr>
<td>Insertion Loss</td>
<td>3.5 dB ± 2dB typical</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>55°C to +150°C</td>
</tr>
<tr>
<td>Resistive Material</td>
<td>Tantalum Nitride (TaN)</td>
</tr>
<tr>
<td>Temperature Coefficient</td>
<td>±150 ppm/°C standard</td>
</tr>
<tr>
<td>Resistance Tolerance</td>
<td>±1% (other tolerances available)</td>
</tr>
<tr>
<td>Substrate</td>
<td>Alumina (Al₂O₃); other substrates available</td>
</tr>
<tr>
<td>Metallization</td>
<td>A = Tantalum/Palladium/Gold (Ta/Pd/Au) R = Titanium/Platinum/Gold (Ti/Pt/Au)</td>
</tr>
</tbody>
</table>

**Packaging**

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

**Mechanical Dimensions**

\[
\begin{align*}
L &= 0.020" \pm 0.002" (0.508\text{mm} \pm 0.051\text{mm}) \\
W &= 0.010" \pm 0.001" (0.254\text{mm} \pm 0.051\text{mm}) \\
H &= 0.010" \pm 0.001" (0.254\text{mm} \pm 0.025\text{mm})
\end{align*}
\]

**Test Conditions**

Resistors were measured using 6.6 mil thick RO4350, using typical TRL calibration.

**Part Numbering**

```
R 35-2010 BB 50R00 F R1 Q E
```

**Performance Charts**

- **Insertion and Return Loss Charts**

**Power Handling:**

\[ E = 100\text{mW} \]

**TCR:** Q = ±150 ppm/°C

**Style:** 1

**Tolerance:** F = ±1%

**Metallization**

R = For Soldering; A = For wirebonding

**Resistance Value:** 50Ω = 50R00;

Digits 1-4 are significant;

Digit 5 is number of zeros to follow

**Broadband:** BB

**Size:** .020” x .010”

**Material:** 35 = Alumina Resistor

**Style:** 1 – Recessed Pad

Best for wire bonding or surface mount applications; compatible with Flip Chip configuration.

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