Features

- D²PAK housing
- Low inductance
- Resistor electrically isolated from the backplate
- High power rating
- Compatible with lead free solder reflow temperatures
- RoHS compliant*
- AEC-Q200 compliant

Bourns® PWR263S-35 Series is a TO263 DPAK style power resistor. Manufactured using thick film on alumina ceramic technology, it is used in current measurement, snubber, bleeder and discharge circuits.

Electrical & Thermal Characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance</td>
<td>0.02 Ω to 130 KΩ</td>
</tr>
<tr>
<td>Power Rating @ 25 °C Case Temperature</td>
<td>35 W</td>
</tr>
<tr>
<td>Tolerance</td>
<td>±1 %**, ±5 %</td>
</tr>
<tr>
<td>TCR</td>
<td>±100 PPM/°C</td>
</tr>
<tr>
<td>Thermal Resistance - Rthj</td>
<td>3.7 °C/W</td>
</tr>
<tr>
<td>Inductance</td>
<td>0.1 μH maximum</td>
</tr>
<tr>
<td>Operating Voltage</td>
<td>V^2/R with a maximum of 250 V</td>
</tr>
<tr>
<td>Dielectric Strength</td>
<td>2 KV AC</td>
</tr>
<tr>
<td>Insulation Resistance</td>
<td>10 GΩ</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-55 °C to 155 °C</td>
</tr>
</tbody>
</table>

** Available for most values. Check Popular Resistance Values table.

Material Characteristics

Resistor ........................................ Thick film
Substrate ..................... Alumina (AL203)
Housing ................................ Epoxy
Pins.................... Tinned Copper (Sn/Cu)
Flammability ........ Conforms to UL-94V0

Reliability Characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Term Overload (2x Pr for R &lt; 2 Ω, 1.6 x Pr for R ≥ 2 Ω, V &lt; 1.5 x Operating Voltage)</td>
<td>ΔR ±0.25 %</td>
</tr>
<tr>
<td>Load Life (1000 hours at rated power)</td>
<td>ΔR ±1.0 %</td>
</tr>
<tr>
<td>Thermal Shock (-55 °C to 155 °C, 5 cycles)</td>
<td>ΔR ±0.5 %</td>
</tr>
<tr>
<td>Resistance to Soldering Heat (10 seconds at 270 °C)</td>
<td>ΔR ±0.5 %</td>
</tr>
<tr>
<td>Vibration (20 G 10-2000 Hz .06 ° D.A.)</td>
<td>ΔR ±0.25 %</td>
</tr>
<tr>
<td>Moisture Sensitivity Level</td>
<td>1</td>
</tr>
</tbody>
</table>

Derating Curve

![Derating Curve Graph]

**WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov


Users should verify actual device performance in their specific applications.

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*** 5 % Tolerance

![RoHS and AEC-Q200 COMPLIANT]
Power dissipation is 3.5 W at an ambient temperature of 25 °C when mounted on a double-sided copper board using FR4 standard, 70 μm of copper, 39 x 30 x 1.6 mm.
The energy absorbed by the resistor expressed in Joules can be calculated by multiplying the peak power of the pulse in watts times the length of the pulse in seconds.

The energy should not exceed the limits shown in the graph. The overload voltage should not exceed 1.5 times the maximum operating voltage.

**Packaging Specifications**

**DIMENSIONS:** MM

**TOLERANCE:** ±0.38 (±0.015) UNLESS OTHERWISE NOTED

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