**Features**

- RoHS compliant* (see How to Order "Termination" option)
- Low profile provides compatibility with DIPs
- Also available in medium profile (4300S - .250") and high profile (4300K - .350")
- Marking on contrasting background
- Custom circuits available per factory

---

### Product Characteristics

<table>
<thead>
<tr>
<th>Resistance Range</th>
<th>Low, Medium, High</th>
</tr>
</thead>
<tbody>
<tr>
<td>49.9 to 100K ohms</td>
<td>20 to 200K ohms</td>
</tr>
<tr>
<td>20 to 100K ohms</td>
<td></td>
</tr>
</tbody>
</table>

- **Resistance Tolerance**: ±0.1 %, ±0.5 %, ±1 %
- **Temperature Coefficient**: ±100 ppm/°C, ±50 ppm/°C, ±25 ppm/°C
- **Temperature Range**: -55 °C to +125 °C
- **Insulation Resistance**: 10,000 megohms minimum
- **TCR Tracking**: ±5 ppm/°C
- **Maximum Operating Voltage**: 50 V

- **Environmental Characteristics**

- **Thermal Shock and Power Conditioning**: 0.1 %
- **Short Time Overload**: 0.1 %
- **Terminal Strength**: 0.25 %
- **Resistance to Soldering Heat**: 0.1 %
- **Moisture Resistance**: 0.1 %
- **Life**: 0.50 %

### Physical Characteristics

- **Body Material Flammability**: Conforms to UL94V-0
- **Lead Frame Material**: Copper, solder coated
- **Body Material**: Novolac epoxy

### How To Order

**4311 T - 101 - 2222 F A B**

- **Model**: (43 = Molded SIP)
- **Number of Pins**: Physical Config.
  - T = Low Profile
  - S = Med. Profile
  - K = High Profile
- **Electrical Configuration**:
  - 101 = Bussed
  - 102 = Isolated
  - 106 = Series
- **Resistance Code**:
  - First 3 digits are significant
  - Fourth digit represents the number of zeros to follow.
- **Absolute Tolerance Code**:
  - B = ±0.1 %
  - F = ±1 %
  - D = ±0.5 %
- **Temperature Coefficient Code**:
  - A = ±100 ppm/°C
  - C = ±25 ppm/°C
  - B = ±50 ppm/°C
- **Ratio Tolerance (Optional)**:
  - A = ±0.05 % to R1
  - D = ±0.5 % to R1
  - B = ±0.1 % to R1
- **Terminations**:
  - L = Tin-plated (RoHS compliant version)
  - Blank = Tin/Lead-plated
- Consult factory for other available options.

### Typical Part Marking

- Represents total content. Layout may vary.

### Package Power Temp. Derating Curve

- (Low Profile, 4300T)

### Package Power Ratings at 70 °C

<table>
<thead>
<tr>
<th></th>
<th>T</th>
<th>S</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>4304</td>
<td>0.60</td>
<td>0.80</td>
<td>watts</td>
</tr>
<tr>
<td>4306</td>
<td>0.75</td>
<td>0.90</td>
<td>1.20</td>
</tr>
<tr>
<td>4308</td>
<td>1.00</td>
<td>1.20</td>
<td>1.60</td>
</tr>
<tr>
<td>4309</td>
<td>1.13</td>
<td>watts</td>
<td></td>
</tr>
<tr>
<td>4310</td>
<td>1.25</td>
<td>1.50</td>
<td>2.00</td>
</tr>
<tr>
<td>4311</td>
<td>1.38</td>
<td>watts</td>
<td></td>
</tr>
</tbody>
</table>

### Product Dimensions

- Governing dimensions are in metric. Dimensions in parentheses are inches and are approximate.

*Terminal centerline to centerline measurements made at point of emergence of the lead from the body.

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*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).*

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**WARNING** Cancer and Reproductive Harm

[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)
For information on thin film applications, download Bourns' Thin Film Application Note.

### 4300T, S, K Series - Thin Film Molded SIP

<table>
<thead>
<tr>
<th>Isolated Resistors (102 Circuit)</th>
<th>Bussed Resistors (101 Circuit)</th>
<th>Series Circuit (106 Circuit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available in 6, 8, 10 Pin</td>
<td>Available in 6, 8, 9, 10, 11 Pin</td>
<td>Available in 6, 8, 9, 10, 11 Pin</td>
</tr>
</tbody>
</table>

These models incorporate 3, 4, or 5 isolated thin-film resistors of equal value, each connected between a separate pin.

### Power Rating per Resistor

<table>
<thead>
<tr>
<th>Power Rating per Resistor</th>
<th>T</th>
<th>S</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance Range...20 to 200K ohms</td>
<td>0.18 watt</td>
<td>0.20 watt</td>
<td>0.25 watt</td>
</tr>
</tbody>
</table>

These models incorporate 5, 7, 8, 9, or 10 thin-film resistors of equal value, each connected between a separate pin.

### Power Rating per Resistor

<table>
<thead>
<tr>
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<th>S</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance Range...20 to 100K ohms</td>
<td>0.10 watt</td>
<td>0.12 watt</td>
<td>0.15 watt</td>
</tr>
</tbody>
</table>

These models incorporate 5, 7, 8, 9, or 10 thin-film resistors of equal value, each connected in a series.

### Power Rating per Resistor

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<tr>
<th>Power Rating per Resistor</th>
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