**Features**

- RoHS compliant*
- Medium profile offers increased power handling
- Wide assortment of pin packages enhances design flexibility
- Ammo-pak packaging available

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**4600M Series - Thick Film Conformal SİPs**

**Product Characteristics**

- **Resistance Range**: 10 ohms to 10 megohms
- **Maximum Operating Voltage**: 100 V
- **Temperature Coefficient of Resistance**: 50 Ω to 2.2 megohms
- **Maximum Package Length**: Equal to 2.54 mm (0.100") times the number of pins, less 0.005 mm (0.002")

**Environmental Characteristics**

- **Tests PER MIL-STD-202**
- **Short Time Overload**: ±0.25 %
- **Load Life**: ±2.00 %
- **Moisture Resistance**: ±0.50 %
- **Resistance to Soldering Heat**: ±0.50 %
- **Terminal Strength**: ±0.25 %
- **Thermal Shock**: ±0.25 %
- **Operating Temperature**: -55 °C to +125 °C

**Physical Characteristics**

- **Flammability**: Conforms to UL94V-0
- **Body Material**: Epoxy resin
- **Standard Packaging**: Bulk, Ammo-pak available

**How To Order**

- **Model (46 = Conformal SIP)**
- **Number of Pins**
- **Electrical Configuration**
  - 101 = Bussed
  - 102 = Isolated
  - 104 = Dual Terminator
- **Resistance Code**
  - First 2 digits are significant
  - Third digit represents the number of zeros to follow.
- **Resistance Tolerance**
  - Blank = ±2 % (see "Resistance Tolerance" on next page for resistance range)
  - F = ±1 % (100 ohms - 5 megohms)
- **Terminations**
  - All electrical configurations EXCEPT 104 & AP4; LF = Sn/Ag/Cu-plated (RoHS compliant)
  - ONLY electrical configurations 104 & AP4: L = Sn/Ag/Cu-plated (RoHS compliant)

**Package Power Temp. Derating Curve**

![Package Power Temp. Derating Curve](image)

**Product Dimensions**

- **Pin A Maximum Count mm (Inches)**
- **Features**
  - RoHS compliant*
  - Medium profile offers increased power handling
  - Wide assortment of pin packages enhances design flexibility
  - Ammo-pak packaging available

**Typical Part Marking**

- Represents total content. Layout may vary.

**For Standard Values Used in Capacitors, Inductors, and Resistors, click here.**

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4600M Series - Thick Film Conformal SIPs

**Isolated Resistors (102 Circuit)**
MODEL 4600M-102-RC
4, 6, 8, 10, 12, 14 Pin

These models incorporate 2 to 7 isolated thick-film resistors of equal value, each connected between two pins.

**Resistance Tolerance**
- 10 ohms to 49 ohms ................. ±1 ohm
- 50 ohms to 5 megohms ............ ±2 %*
- Above 5 megohms ................... ±5 %

**Power Rating per Resistor**
At 70 °C .............................. 0.40 watt

**Power Temperature Derating Curve**

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**Bussed Resistors (101 Circuit)**
MODEL 4600M-101-RC
4 through 14 Pin

These models incorporate 3 to 13 thick-film resistors of equal value, each connected between a common bus (pin 1) and a separate pin.

**Resistance Tolerance**
- 10 ohms to 49 ohms ................. ±1 ohm
- 50 ohms to 5 megohms ............ ±2 %*
- Above 5 megohms ................... ±5 %

**Power Rating per Resistor**
At 70 °C .............................. 0.25 watt

**Power Temperature Derating Curve**

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**Dual Terminator (104 Circuit)**
MODEL 4600M-104-R1/R2
4 through 14 Pin

The 4608M-104 (shown above) is an 8-pin configuration and terminates 6 lines. Pins 1 and 8 are common for ground and power, respectively. Twelve thick-film resistors are paired in series between the common lines (pins 1 and 8).

**Resistance Tolerance**
Below 100 ohms........................ ±2 ohms
100 ohms to 5 megohms .......... ±2 %*
Above 5 megohms ................... ±5 %

**Power Rating per Resistor**
At 70 °C .............................. 0.25 watt

**Power Temperature Derating Curve**

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### Popular Resistance Values (101, 102 Circuits)**

<table>
<thead>
<tr>
<th>Ohms</th>
<th>Code</th>
<th>Ohms</th>
<th>Code</th>
<th>Ohms</th>
<th>Code</th>
<th>Ohms</th>
<th>Code</th>
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<tbody>
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<td>10</td>
<td>100</td>
<td>180</td>
<td>181</td>
<td>1,800</td>
<td>182</td>
<td>15,000</td>
<td>153</td>
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<td>22</td>
<td>220</td>
<td>220</td>
<td>221</td>
<td>2,000</td>
<td>202</td>
<td>18,000</td>
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<td>27</td>
<td>270</td>
<td>270</td>
<td>271</td>
<td>2,200</td>
<td>222</td>
<td>20,000</td>
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<td>330</td>
<td>330</td>
<td>331</td>
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* ±1 % tolerance is available by adding suffix code “F” after the resistance code.
**Non-standard values available, within resistance range.

### Popular Resistance Values (104 Circuit)**

<table>
<thead>
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<th>Ohms</th>
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<th>Code</th>
<th>Ohms</th>
<th>R2</th>
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<td>471</td>
<td></td>
</tr>
<tr>
<td>3,000</td>
<td>6,200</td>
<td>302</td>
<td>622</td>
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Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.