Surface Mount Fuses

Subminiature Surface-mount

**NANO® FUSE** Very Fast-Acting 451/453 Series

The Nano® SMF Fuse is a very small, square surface mount fuse that is also available in a surface mount holder.

• 451 Series RoHS Compliant version now available, use ordering suffix 'L' (see example on data sheet).

### ELECTRICAL CHARACTERISTICS:

<table>
<thead>
<tr>
<th>Ampere Rating</th>
<th>Ampere Opening</th>
<th>Cold Ohms</th>
<th>Nominal Melting Time 'A Sec.'</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>1/16–15</td>
<td>4 hours, Minimum</td>
<td>0.00019</td>
</tr>
<tr>
<td>200%</td>
<td>1/16–10</td>
<td>5 seconds, Maximum</td>
<td>0.00333</td>
</tr>
</tbody>
</table>

### ENVIRONMENTAL SPECIFICATIONS:

- **Operating Temperature:** –55°C to 125°C.
- **Shock:** MIL-STD-202, Method 213, Test Condition I (100 G's peak for 6 milliseconds).
- **Vibration:** MIL-STD-202, Method 201 (10–55 Hz).
- **Salt Spray:** MIL-STD-202, Method 101, Test Condition B.
- **Thermal Shock:** MIL-STD-202, Method 107, Test Condition B (–65 to 125°C).

### PHYSICAL SPECIFICATIONS:

- **Materials:** Body: Ceramic
  - Terminations: Tin-Lead Alloy
  - RoHS Compliant Terminations: Gold over Nickel Plated Caps(451) Silver Plated Caps(453)

- **Soldering Parameters:**(see page 3 for typical soldering profile):
  - Wave Solder — 260°C, 10 seconds maximum
  - Reflow Solder — 260°C, 30 seconds maximum

- **Solderability:** MIL-STD-202, Method 208.

### PACKAGING SPECIFICATIONS:

- **12mm Tape and Reel per EIA-RS481-1 (IEC 286, part3):** 1,000 pieces per reel, add packaging suffix, MR; 5,000 per reel, add packaging suffix NR.

### Options:

- For RoHS Compliant 451 series add the letter ‘L’ to end of packaging suffix. Example: R451001.MRL (RoHS Compliant 1A, 1,000 per reel).

**PATENTED**

RoHS Compliant Terminations: Gold over Nickel Plated Caps(451) Silver Plated Caps(453)