**THIN FILM MULTI-TAP RESISTORS**

**MSMT 117 SERIES**

**MECHANICAL DATA**
- SIZE: 0.030" x 0.030" x 0.010" (±0.003"
- SUBSTRATE: SILICON
- RESISTOR: TANTALUM NITRIDE
- BOND PADS: 25,000 Å MINIMUM GOLD; ALUMINUM OPTIONAL
- BACKSIDE SURFACE: BARE SUBSTRATE STANDARD

**ELECTRICAL DATA**
- RESISTANCE RANGE: GOLD BACK OPTIONAL, SUITABLE FOR EUTECTIC DIE ATTACH
- TOTAL RESISTANCE VALUES: 80Ω, 150Ω, 80Ω, 240Ω, 600Ω, 12Ω, 2Ω, 12Ω, 24Ω, 80Ω, 800Ω, 16Ω

**OTHER VALUES AVAILABLE, PLEASE CONSULT SALES**

**MSMT 125 SERIES**

**MECHANICAL DATA**
- SIZE: 0.034" x 0.034" x 0.010" (±0.003"
- SUBSTRATE: SILICON
- RESISTOR: TANTALUM NITRIDE
- BOND PADS: 25,000 Å MINIMUM GOLD; ALUMINUM OPTIONAL
- BACKSIDE SURFACE: BARE SUBSTRATE

**ELECTRICAL DATA**
- RESISTANCE RANGE: GOLD BACK OPTIONAL, SUITABLE FOR EUTECTIC DIE ATTACH
- TOTAL RESISTANCE VALUES: 1Ω, 5Ω, 2.5Ω, 1Ω, 2.5Ω, 1Ω, 2.5Ω

**OTHER VALUES AVAILABLE, PLEASE CONSULT SALES**

**117 / 125 COMMON SERIES DATA**

**TOLERANCES**
- 5%, 10% (APPLIES TO INDIVIDUAL RESISTIVE ELEMENTS)
- T.C.R. ±150ppm/°C STANDARD
- CURRENT RATING -300mA MAX
- POWER RATING 250mW MAX (70°C DERATED LINEARLY TO 150°C) P = E/R
- OPERATING VOLTAGE 100V MAX
- SHORT TERM OVERLOAD 5X RATED POWER, 25°C, 5 SEC., ±2.5% MAX, ΔR/R: ±0.1% MSI TYPICAL
- HIGH TEMP EXPOSURE 150°C, 100 HRS., ±2.5% MAX, ΔR/R: ±0.03% MSI TYPICAL
- THERMAL SHOCK MIL-STD 202, METHOD 107F, ±2.5% MAX, ΔR/R: ±0.1% MSI TYPICAL
- MOISTURE RESISTANCE MIL-STD 202, METHOD 106, ±0.5% MAX, ΔR/R: ±0.1% MSI TYPICAL
- STABILITY 1000 HRS., 70°C, 100% POWER, ±0.5% MAX, ΔR/R: ±0.1% MSI TYPICAL
- OPERATING TEMP RANGE -55°C TO +125°C

**PART NUMBER DESIGNATION**

<table>
<thead>
<tr>
<th>MSMT XXX</th>
<th>X</th>
<th>X</th>
<th>XXXXX</th>
<th>X</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERIES</td>
<td>SUBSTRATE</td>
<td>RESISTIVE FILM</td>
<td>OHMIC VALUE</td>
<td>TOLERANCE</td>
<td>OPTION</td>
</tr>
<tr>
<td>117</td>
<td>S = Silicon</td>
<td>T = Tantulam Nitride</td>
<td>5-Digit Number: 1st 4 Digits Are Significant With °R As Decimal Point When Required. 5th Digit Represents Number of Zeros.</td>
<td>J = 5%</td>
<td>E = Aluminum Bond Pads</td>
</tr>
<tr>
<td>125</td>
<td>S = Silicon</td>
<td>T = Tantulam Nitride</td>
<td>5-Digit Number: 1st 4 Digits Are Significant With °R As Decimal Point When Required. 5th Digit Represents Number of Zeros.</td>
<td>K = 10%</td>
<td>G = Gold Bond Pads</td>
</tr>
</tbody>
</table>

**EXAMPLE:** MSMT 125-11000K-G = 125 Series, 1.1KΩ Total Res. Value, ±10% Tol., Gold Bond Pads Bare Backside