**SM - PRECISION POWER**

Profit from Precision Power SM Series

Sub-miniature high values .......... to 4 Megohms
Tolerance .................................. to ±0.1%
TCR Characteristic .................... 0+10ppm/°C
High voltage rating .................... to 1250 Volts
Low EMF construction .............. Vs. copper leads

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### ELECTRICAL & PHYSICAL SPECIFICATIONS

#### TWO (2) TERMINAL

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>MIL R-26</td>
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<tr>
<td>SM041</td>
<td></td>
<td>0.125W 1.0</td>
<td>5K</td>
<td>10K</td>
<td>25V 6.35 (250°) 1.52 (.960') .20'</td>
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<tr>
<td>SM062</td>
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<td>0.25W 1.0</td>
<td>17K</td>
<td>30K</td>
<td>65V 6.35 (250°) 2.03 (.880') .20'</td>
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<tr>
<td>SM063</td>
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<td>0.5W 1.0</td>
<td>24K</td>
<td>50K</td>
<td>110V 7.92 (312°) 2.03 (.880') .20'</td>
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<tr>
<td>SM094</td>
<td>RW70</td>
<td>1W 0.1</td>
<td>40K</td>
<td>80K</td>
<td>200V 10.31 (.406°) 2.92 (.115') .25'</td>
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<tr>
<td>SM076</td>
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<td>1.125W 1.0</td>
<td>53K</td>
<td>180K</td>
<td>245V 12.7 (.500') 2.29 (.990') .20'</td>
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<tr>
<td>SM156</td>
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<td>1.5W 1.0</td>
<td>90K</td>
<td>400K</td>
<td>375V 13.49 (.531°) 4.47 (.176') .28'</td>
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<tr>
<td>SM171</td>
<td></td>
<td>2W 0.1</td>
<td>115K</td>
<td>900K</td>
<td>670V 20.62 (.812°) 4.83 (.190') .28'</td>
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<tr>
<td>SM186</td>
<td>RW69</td>
<td>3W *0.025</td>
<td>80K</td>
<td>480K</td>
<td>500V 12.7 (.500') 5.26 (.207') .28'</td>
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<tr>
<td>SM177</td>
<td>RW79</td>
<td>3W 0.1</td>
<td>80K</td>
<td>540K</td>
<td>500V 14.27 (.562°) 4.83 (.190') .28'</td>
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<td>SM122</td>
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<td>3W *0.02</td>
<td>120K</td>
<td>720K</td>
<td>600V 15.88 (.625°) 6.10 (.240') .32'</td>
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<tr>
<td>SM2812</td>
<td>RW74</td>
<td>5W *0.02</td>
<td>200K</td>
<td>1 MEG</td>
<td>1000V 22.86 (.900°) 7.92 (.312') .32'</td>
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<tr>
<td>SM3114</td>
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<td>6.5W 0.1</td>
<td>154K</td>
<td>1.5 MEG</td>
<td>1000V 25.4 (1.000°) 8.43 (.332') .32'</td>
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<td>SM3726</td>
<td>RW78</td>
<td>10W *0.07</td>
<td>156K</td>
<td>4 MEG</td>
<td>1250V 45.21 (1.780°) 10.03 (.395') .32'</td>
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### ENGINEERING DATA:

1. **RESISTANCE RANGE**
   - PRC’s sub-miniature type SM “precision power” resistors offer the widest range of ohmic values anywhere.
   - You can select any value or decimal part of an ohm from 0.02Ω to 4 Megohms.

2. **CUSTOM TOLERANCES**
   - ±1%(Std.), ±0.5%, ±0.25%, ±0.1%
   - For closer Tolerance, see HR Series.

3. **TCR CHARACTERISTIC**
   - Standard: 0±10ppm/°C for 100Ω and above and 0±15ppm/°C below 100Ω.
   - Special: 0±2ppm/°C

4. **VOLTAGE RATING**
   - **DC Voltage or Peak Voltage:**
     - The type SM’s high operating voltage winding patterns eliminate dangerous crossovers and potential problems usually associated with standard style bobbins and mandrel designs. To calculate the safe operating voltage for any resistance value below the maximum listed, apply the formula: Er(E=PR).

5. **PRECISION POWER RATINGS**
   - All standard ±1% tolerance type SM resistors are designed for continuous full load operation at +25°C. Derated to zero wattage at +25°C (see Fig. 5 above).

6. **INDUCTANCE**
   - Standard: Inductively wound
   - Special: Non-inductive winding is available, simply add suffix letter “N” to the end of part number.

7. **TERMINALS**
   - Standard: Solderable hot-tinned pure copper leads.

8. **PROTECTIVE SEAL**
   - SM resistors are coated in a tough solvent resistant high-temperature silicone formulation … with indelible marking.

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**PRECISION RESISTOR CO., INC.**
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Email: sales@precisionresistor.com
Web Site: http://www.precisionresistor.com

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* 0.02Ω to 1.0Ω and maximum resistance values available in non-standard physical sizes 0 to > 0.002Ω.
* All low value 2-terminal designs are calibrated and tested at mid-point on lead unless otherwise specified.