



# THUNDER PRECISION RESISTORS



BS EN ISO9001:2008 FM51927

Thick Film Power Resistors

厚膜无感大功率电阻

for High Frequency and Pulse Loading Applications

| Type                                       | RGP35  | RGP50              | RGP100             | 型号               |
|--|--|--------------------|--------------------|------------------|
| Encapsulation type                         | TO-220   | TO-220             | TO-247             | 封装形式             |
| Standard applied                           | IEC60115-1:2001(GB/T5729-2003); MIL-STD-202; MIL-R-39009D  |                    |                    | 技术标准             |
| Watt power rating at 25°C case temperature | 35W  | 50W                | 100W               |                  |
| Operating voltage $U_{max}$                | 350V <sub>dc</sub>   | 420V <sub>dc</sub> | 700V <sub>dc</sub> | $U_{max}$ 额定工作电压 |
| Resistance range                           | 0.2Ω~1MΩ   |                    |                    | 标准阻值范围           |
| Tol.                                       | D(±0.50%); F(±1.0%); J(±5.0%); K(±10%);  |                    |                    | 精度               |
| TCR (ppm/°C)                               | C2(±50); (25°C~105°C)  |                    |                    | (ppm/°C) 温度系数    |
| Short time over load voltage               | 2U <sub>rate</sub> or 1.5U <sub>max</sub> whichever is lower, last 5s<br>$\Delta R \leq \pm(0.3\%R+0.001\Omega)$ . |                    |                    | 最大短时过载电压         |
| Operating Temperature range                | -55°C~+175°C   |                    |                    | 工作环境温度           |
| Dielectric strength                        | 1800V <sub>ac</sub>  |                    |                    | 介质强度             |
| Terminal strength                          | 2.4N, $\Delta R \leq \pm(0.2\%R+0.001\Omega)$ ; MIL-Std-202, method 211, Cond.A                                    |                    |                    | 介质强度             |
| Thermal shock                              | $\Delta R \leq \pm(0.3\%R+0.001\Omega)$ ; MIL-Std-202, method 107, Cond.F  |                    |                    | 热冲击试验            |
| Moisture resistance                        | $\Delta R \leq \pm(0.5\%R+0.001\Omega)$ ; MIL-Std-202, method 106,   |                    |                    | 耐湿试验             |
| Life load                                  | 2000 hours at rated power, MIL-R-39009D<br>$\Delta R \leq \pm(1.0\%R+0.001\Omega)$ .                               |                    |                    | 寿命试验             |
| Vibration, high frequency                  | $\Delta R \leq \pm(0.2\%R+0.001\Omega)$ ; MIL-Std-202, method 204, Cond.D,   |                    |                    | 高频振动             |

Unless otherwise specified, all values are tested at the following condition: Temperature: 21°C to 25°C; Relative humidity: 45% to 60%

[www.thunder-resistor.com](http://www.thunder-resistor.com)

[sales@thunder-resistor.com](mailto:sales@thunder-resistor.com)




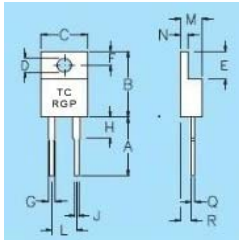
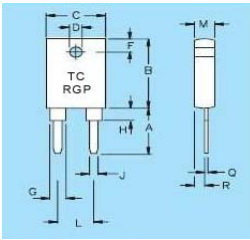

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|-----------|---|------|---|-------|---|-------|---|---|------|
|           | min   | max  | min   | max   | min   | max   |   |   |      |
| Dimension | A   | 12.7 | 14.7  | 11.43 | 13.97   | 13.21 | 15.75   | A | 外观尺寸 |
|           | B   | 14.5 | 15  | 16    | 16.52   | 20.44 | 20.96   | B |      |
|           | C   | 9.91 | 10.41   | 10.15 | 10.67   | 15.49 | 16.01   | C |      |
|           | D   | 3.55 | 3.75  | 3.08  | 3.28  | 3.53  | 3.73  | D |      |
|           | E   | 5.85 | 6.35  | -     | -   | -     | -   | E |      |
|           | F   | 2.85 | 3.05  | 2.92  | 3.44  | 5.07  | 5.59  | F |      |
|           | G   | 1.17 | 1.37  | 1.14  | 1.4   | 3.45  | 3.81  | G |      |
|           | H   | -    | 4   | 2.54  | 4.06  | 2.03  | 3.55  | H |      |
|           | J   | 0.7  | 0.86  | 0.66  | 0.86  | 1.37  | 1.67  | J |      |
|           | L   | 4.83 | 5.33  | 4.82  | 5.34  | 9.9   | 10.42   | L |      |
|           | M   | 4.06 | 4.82  | 2.92  | 3.44  | 4.69  | 5.21  | M |      |
|           | N   | 1.2  | 1.4   |       |   | -     | -   |   |      |
|           | Q   | 0.55 | 0.7   | 0.4   | 0.6   | 0.55  | 1.07  | Q |      |
| R         | 2.05  | 2.25 | 1.52  | 2.04  | 2.15  | 2.67  | R   |   |      |
| Dimension |  |      |  |       |  |       |  |   | 外观尺寸 |