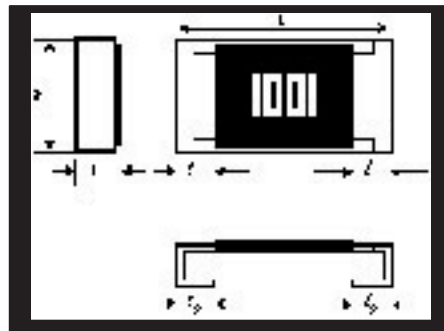


MEGASTAR-OHM'S precision thick film chip resistors provide low temperature coefficients at a very economical cost. These resistors are a dependable solution for maintaining resistance stability over changing temperature ranges found in automotive, computer, and a variety of other industrial and commercial applications.

FEATURES

1. A wide range of power ratings for design flexibility
2. T.C.R. of either ± 100 ppm/ $^{\circ}\text{C}$ or ± 50 ppm/ $^{\circ}\text{C}$ available with all power ratings.
3. Excellent solderability with both flow and reflow soldering operations.
4. Operating temperatures ranges from -55°C to $+125^{\circ}\text{C}$.

DIMENSIONS



| TYPE (size) | RGC 16S (0402) | RGC 16 (0603) | RGC 10 (0805) | RGC 18 (1206) |
|----------------|---|----------------|---|---|
| L | 1.0 \pm 0.05 | 1.6 \pm 0.1 | 2.0 \pm 0.15 | 3.1 \pm 0.2 |
| W | 0.5 \pm 0.05 | 0.8 \pm 0.1 | 1.25 \pm _{0.05} ^{0.1} | 1.55 \pm 0.1 |
| H | 0.35 \pm 0.05 | 0.45 \pm 0.1 | 0.6 \pm 0.1 | 0.6 \pm 0.1 |
| l ₁ | 0.2 \pm 0.1 | 0.25 \pm 0.1 | 0.4 \pm 0.2 | 0.45 \pm 0.2 |
| l ₂ | 0.25 \pm _{0.1} ^{0.15} | 0.3 \pm 0.1 | 0.3 \pm _{0.1} ^{0.2} | 0.3 \pm _{0.1} ^{0.2} |
| Unit Weight | 0.6 mg | 2 mg | 5 mg | 9 mg |

RATINGS

Resistance values indicated by four digit marking on 0805 and larger components.

| Type (Size) | Rated Power @ 70 $^{\circ}\text{C}$ W | Maximum Working Voltage V | Maximum Overload Voltage V | Resistance Temperature Coefficient ppm/ $^{\circ}\text{C}$ | Resistance Range and Tolerance (E ₉₆ Series) | |
|----------------|---------------------------------------|---------------------------|----------------------------|--|---|-----------------|
| | | | | | $\pm 0.5\%$ (D) | $\pm 1.0\%$ (F) |
| RGC 16S (0402) | 0.063 | 50 | 100 | ± 50 | 100? to 1.0M? | 100? to 1.0M? |
| | | | | ± 100 | ————— | 10? to 3.3M? |
| RGC 16 (0603) | 0.063 | 50 | 100 | ± 50 | 100? to 1.0M? | 100? to 1.0M? |
| | | | | ± 100 | ————— | 3.3? to 3.3M? |
| RGC 10 (0805) | 0.1 | 150 | 300 | ± 50 | 10? to 3.3M? | 10? to 3.3M? |
| | | | | ± 100 | ————— | 3.3? to 3.3M? |
| RGC 18 (1206) | 0.125 | 200 | 400 | ± 50 | 10? to 4.7M? | 10? to 4.7M? |
| | | | | ± 100 | ————— | 3.3? to 4.7M? |

For T.C.R. less than 50ppm/ $^{\circ}\text{C}$ and resistance tolerance less $\pm 0.5\%$, use RNC type.

Part Numbering System

RGC 18 K XXXX D T

| Product Type |
|---|
| Precision Thick Film Chip Resistor Low T.C.R. |

| Packaging | |
|-----------|-----------------------|
| CODE | DETAIL |
| B | Bulk |
| T | Tape & Reel (paper) |
| TE | Tape & Reel (plastic) |

Please refer to packaging explanation on page 6.

| CODE | WATTAGE (SIZE) |
|------|------------------|
| 16S | 1/16 watt (0402) |
| 16 | 1/16 watt (0603) |
| 10 | 1/10 watt (0805) |
| 18 | 1/8 watt (1206) |

| T.C.R. | |
|--------|-----------------------------------|
| CODE | ppm/ $^{\circ}\text{C}$ |
| T | ± 10 ppm/ $^{\circ}\text{C}$ |
| E | ± 25 ppm/ $^{\circ}\text{C}$ |
| C | ± 50 ppm/ $^{\circ}\text{C}$ |
| K | ± 100 ppm/ $^{\circ}\text{C}$ |

| Resistance Value | |
|------------------------------|---------|
| 4-Digit Code E ₉₆ | |
| CODE | VALUES |
| 1002 | 10.0 K? |
| 10R0 | 10.0? |

| TOLERANCE | |
|-----------|-------------|
| CODE | % |
| B | $\pm 0.1\%$ |
| D | $\pm 0.5\%$ |
| F | $\pm 1.0\%$ |



RGC 16S, 16, 10, 18

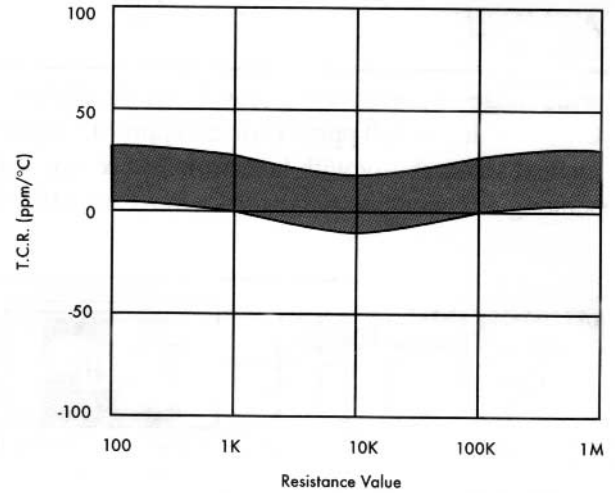
LEADFREE
RoHS Compliant

• PERFORMANCE CHARACTERISTICS

| DESCRIPTION | PERFORMANCE |
|--|-----------------------|
| Resistance Temperature Coefficient | As specified in table |
| Short-time overload | ±0.5% maximum |
| Insulation Resistance | 1,000 M minimum |
| Terminal Strength | ±0.25% maximum |
| Vibration | ±0.25% maximum |
| Solder-Heat resistance | ±0.25% maximum |
| Solderability | 95% minimum coverage |
| Temperature Cycle | ±0.25% maximum |
| Load Life in Moisture | ±0.5% maximum |
| Load Life | ±0.5% maximum |
| Test methods per EIA 575 and JIS C5202 | |

• TYPICAL PERFORMANCE

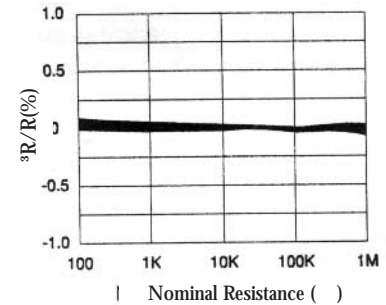
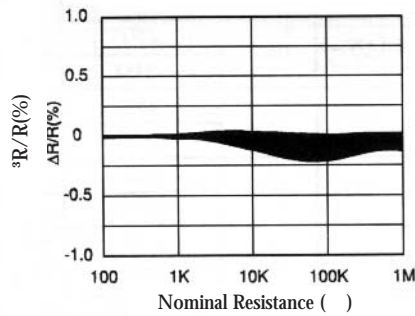
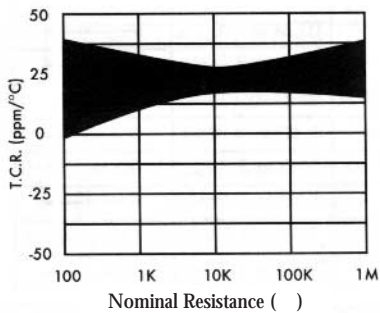
Resistance Temperature Coefficient
RGC 18, ±50ppm/°C



PERFORMANCE CURVES

Short Time Overload

Solder Heat Resistance (260°C, 10 sec)



Nominal Resistance ()

Temperature Cycle (-55°C/125°C, 5 cycles)

Load Life (Rated Load) (70°C, RCWV 1,000 hrs)

