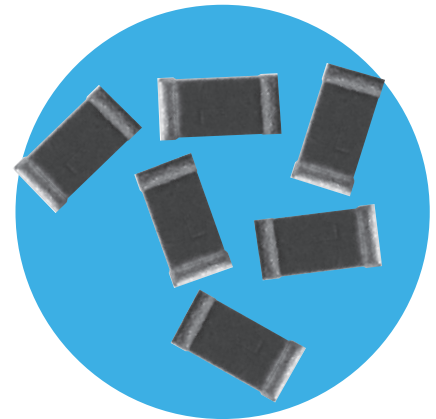


Glueable Chip Resistor

GCR Series

- Suitable for conductive adhesive
- Planar and wraparound versions
- High temperature operation to 200°C
- Non-magnetic (G, P & EW types)
- Range 0805 to 2512 at 1R0 to 10M
- RoHS compliant

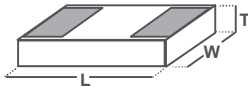
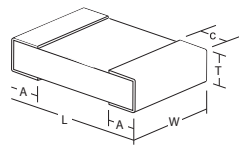


 All parts are Pb-free and comply with EU Directive 2011/65/EU amended by (EU) 2015/863 (RoHS3)

Electrical Data

| Size | | 0805 | 1206 | 2010 | 2512 |
|-------------------------------------|-----------|--|------|-------|------|
| Power @70°C | W | 0.125 | 0.25 | 0.625 | 1 |
| Resistance range | ohms | 1R0 to 10M | | | |
| Tolerance | % | 1, 5 | | | |
| LEV | V | 150 | 200 | 400 | 500 |
| TCR | ppm/°C | <10R:200 ≥10R:100 | | | |
| Operating temperature | °C | -55 to +200 | | | |
| Thermal Impedance | °C/W | 220 | 160 | 75 | 40 |
| Values | | E24 or E96 preferred - other values to special order | | | |
| Zero-ohm jumper current rating | A | 1.5 | 2 | | |
| Zero-ohm jumper residual resistance | milliohms | <50 | | | |

Physical Data

| Dimensions (mm) & weight (mg) | | | | | | | | |
|-------------------------------|----------|-----------|-------|----------|----------|-----|--|---|
| | L | W | T max | A | C | Wt. | G & P types | EW & GW types |
| 0805 | 2.0±0.15 | 1.25±0.15 | 0.6 | 0.3±0.15 | 0.3±0.1 | 4.7 |  |  |
| 1206 | 3.2±0.2 | 1.6±0.2 | 0.7 | 0.4±0.2 | 0.4±0.15 | 8.5 | | |
| 2010 | 5.1±0.3 | 2.5±0.2 | 0.8 | 0.6±0.3 | 0.6±0.25 | 36 | | |
| 2512 | 6.5±0.3 | 3.2±0.2 | 0.8 | 0.6±0.3 | 0.6±0.25 | 55 | | |

Construction

Planar gold G type or PtAg P types: Electrodes, resistor material and overglaze are printed onto an alumina substrate. The resistors are laser trimmed to the required value and protected.

Wraparound EW type: Thick-film PtAg electrodes, resistor material and overglaze are printed onto an alumina substrate. The resistors are laser trimmed to the required value and protected. The terminations are wraparound coated with a polymer Ag material.

Wraparound GW type: These are made as the EW type then plated with a nickel barrier and Gold. All termination styles are suitable for attachment with conductive adhesive.

Marking

The components are not marked; all data is printed onto the packaging.

Solvent Resistance

The component is resistant to all normal industrial cleaning solvents suitable for printed circuits.

General Note

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Performance Data

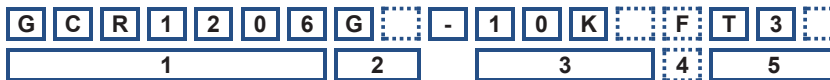
| | | Maximum | Derating Curve |
|---|----|--------------------|---------------------------|
| Load at rated power (1000hrs at 70°C) | ΔR | 2% + 0.01Ω | |
| Derating from rated power at 70°C | | See Derating Curve | |
| Short term overload | ΔR | 1% + 0.01Ω | |
| Dry heat (1000hrs at 200°C) | ΔR | 2% + 0.01Ω | |
| Damp heat steady state (56 days, 40°C, ≥90% RH) | ΔR | 1% + 0.01Ω | |
| Climatic | ΔR | 1% + 0.01Ω | |
| Temperature rapid change (5 cycles -55°C to +200°C) | ΔR | 1% + 0.01Ω | |

Packaging

0805 and 1206 GCR series resistors are supplied on 8mm carrier tape and 7 inch reels as per IEC 286-3, quantity per reel; 3000.
2010 and 2512 GCR series resistors are supplied on 12mm carrier tape and 7 inch reels as per IEC 286-3, quantity per reel; 2010: 3000pcs; 2512: 1800pcs.

Ordering Procedure

Example: GCR1206G-10KFT3 (GCR1206 in gold planar format at 10 kilohms ±1%, Pb-free)



| 1 | 2 | | 3 | 4 | 5 | | |
|---------|-------------|-----------------------------------|---|-----------------|---------|--------------------|-----------------------|
| Type | Termination | | Value | Tolerance | Packing | | |
| GCR0805 | G | Gold planar | 3/4 characters R = ohms K = kilohms M = megohms R000 = jumper | F = ±1% | T3 | 0805,1206, 2010 | Tape, up to 3000/reel |
| GCR1206 | P | PtAg planar | | J = ±5% | | | |
| GCR2010 | EW | Polymer Ag wraparound | | Omit for jumper | T18 | 2512 | Tape, up to 1800/reel |
| GCR2512 | GW | Ni Barrier & Au plated wraparound | | | | | |

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