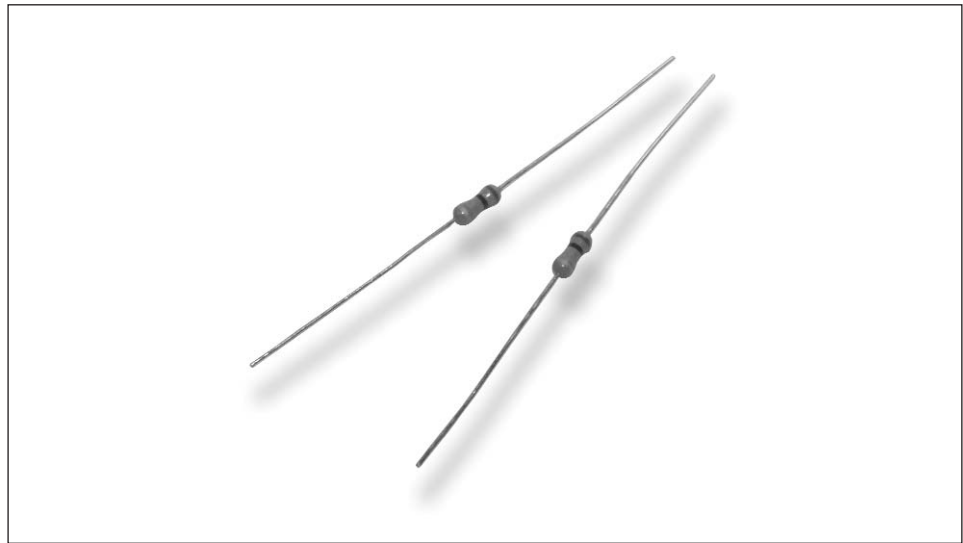


## Type RGP Series

### Key Features

- The thick film is suitable for the manufacture of very high resistance values and for high voltage working components.
- The combination of high values and high working voltage makes these components ideally suited for such applications as TVs, electrical measuring equipment etc..
- Thick film metal glaze series for high ohmic values and high voltage surge rating with a range up to 10 Gohm.

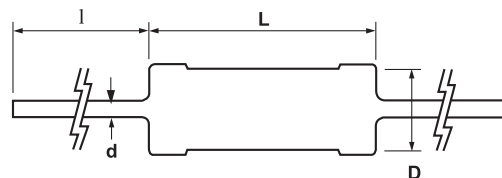


Metal glaze resistors are manufactured using thick film techniques. The ceramic slugs have the thick film applied, the film is fired and end caps are forced onto the slugs, the resistive element is spiralled to value and lead wires are welded onto the end caps. Four layers of coating are applied - the first being a phenolic resin, the other three being epoxy.

### Characteristics - Electrical

|                                 | RGP0207CH   | RGP50 | RGP100 | RGP200 | RGP300 | RGP400 |
|---------------------------------|-------------|-------|--------|--------|--------|--------|
| Rated Power @ 70°C (W):         | 0.25        | 0.5   | 1      | 2      | 3      | 4      |
| Resistance Range (ohms) Min:    | 1M0         | 1M0   | 1M0    | 1M0    | 1M0    | 1M0    |
| Max:                            | 1G0         | 3G0   | 5G0    | 5G0    | 10G    | 10G    |
| Tolerance (%):                  | 5 10        |       |        |        |        |        |
| Code Letter:                    | J K         |       |        |        |        |        |
| Temp. Coefficient Max (ppm/°C): | ±350        |       |        |        |        |        |
| Selection Series:               | E24         |       |        |        |        |        |
| Limiting Element Voltage (V):   | 750         | 1K0   | 1K5    | 5K0    | 10K    | 15K    |
| Maximum Overload Voltage (V):   | 1K0         | 1K5   | 2K5    | 7K5    | 15K    | 20K    |
| Operating Temp. Range (°C):     | -55 to +155 |       |        |        |        |        |
| Climatic Category:              | 55/155/56   |       |        |        |        |        |
| Voltage Coefficient (±%/V):     | 0.005       |       |        |        |        |        |
| Typical Noise at 47Mohm:        | 0.75        |       |        |        |        |        |
| Dielectric Strength (V):        | 300         |       |        |        |        |        |
| Insulation Resistance (Mohms):  | 1000        |       |        |        |        |        |

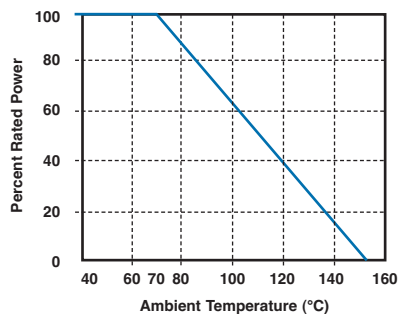
### Dimensions



| Style     | L ± 1 | D ± 0.5 | d ± 0.1 | l ± 2 |
|-----------|-------|---------|---------|-------|
| RGP0207CH | 6.5   | 2.5     | 0.6     | 28    |
| RGP50     | 13.0  | 4.5     | 0.8     | 38    |
| RGP100    | 14.5  | 5.5     | 0.8     | 38    |
| RGP200    | 27.0  | 7.0     | 0.8     | 38    |
| RGP300    | 42.0  | 7.0     | 0.8     | 38    |
| RGP400    | 52.0  | 8.0     | 1.0     | 38    |

## Type RGP Series

### Derating Curve



### Mounting

The resistors are suitable for processing on automatic insertion equipment and cutting and bending machines.

### Marking

RGP0207CH are marked with a four band colour code in accordance with IEC 62. All others are marked alpha-numerically with the type, value and tolerance.

### Packaging

RGP0207CH resistors are normally supplied taped in 'ammo' boxes of 2000 pieces for the range 1M1 to 100M and in boxes of 1000 for the range 101M to 1G0. All other case sizes are packed loose in polythene bags in quantities of 50 pieces per bag. Please consult the Sales Office for tape/boxed product up to 2 watt case size.

### Special Requirements

Other values and power ratings are available. Contact the Sales Office for special requirements.

### Performance Characteristics

The evaluation of the performance characteristics is carried out with reference to IEC Specifications QC 400 000 and QC 400 100.

| TEST REF | Long Term Tests $\pm$ (2% + 0.05 ohm)  |
|----------|----------------------------------------|
| 4.23     | Climatic sequence                      |
| 4.24     | Damp heat, steady state                |
| 4.25.1   | Endurance at 70°C                      |
| 4.25.3   | Endurance at 155°C                     |
| TEST REF | Short Term Tests $\pm$ (1% + 0.05 ohm) |
| 4.13     | Overload                               |
| 4.16     | Robustness of terminations             |
| 4.18     | Resistance to soldering heat           |
| 4.19     | Rapid change of temperature            |
| 4.22     | Vibration                              |

### How to Order

| RGP                              | 0207CH                                                                      | J         | 100R                                                                                    |
|----------------------------------|-----------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------|
| Common Part                      | Style                                                                       | Tolerance | Value                                                                                   |
| RGP - Metal Glaze Fixed Resistor | 0207CH - 0.25W<br>50 - 0.5W<br>100 - 1W<br>200 - 2W<br>300 - 3W<br>400 - 4W | J - 5%    | 100 ohm<br>(100 ohms) 100R<br>1K0<br>(1000 ohms) 1K0<br>100K ohm<br>(100,000 ohms) 100K |

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