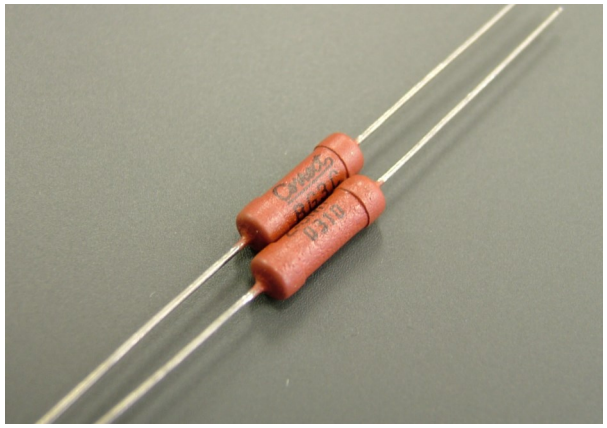
# Correctohm-RG Series

# *RESISTOR*

**Metal Glaze Resistor**

**High range & High voltage**

**Anti Pulse / Surge**

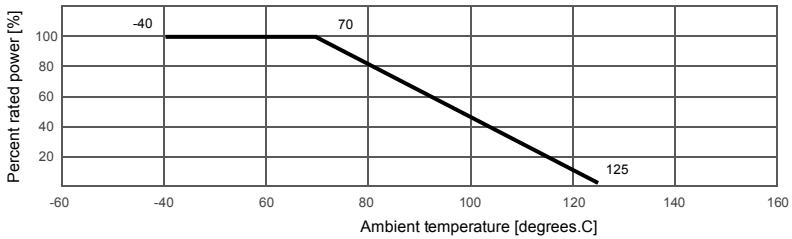


## Model number

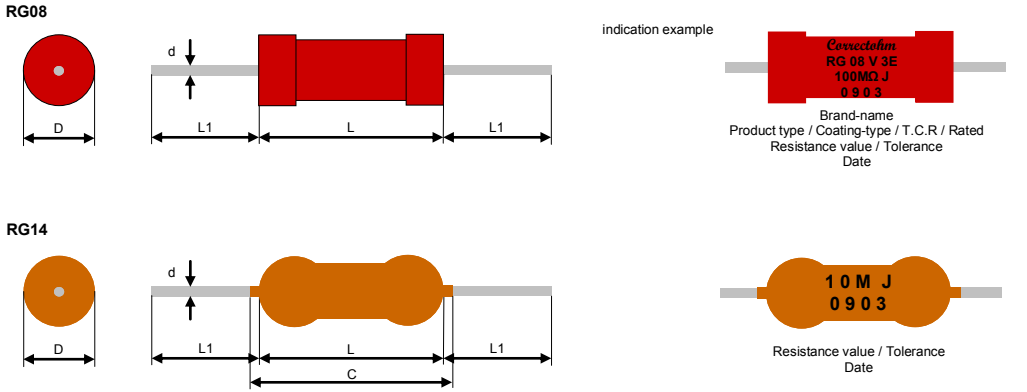
| RG | 08 | V | 3C | 100Mohm | G |
|---|---|---|---|---|---|
| Product type | Coating type<br>**08**: silicone resin<br>**14**: epoxy resin | Temperature coefficient of resistance | Rated power | Resistance value | Resistance tolerance<br>**F**: ±1%<br>**G**: ±2%<br>**J**: ±5% |

## Rating

| Product type | Rated power [W] 70 degs.C | Highest usable voltage [KV] | Extreme highest overload voltage [KV] | Applicable temperature range [degs C] |
|---|---|---|---|---|
| RG08 2H | 0.5 | 0.6 | 1.2 | -40~125 [degs.C] |
| RG08 2K | 0.8 | 1.0 | 2.0 | |
| RG08 3C | 1.6 | 1.5 | 3.0 | |
| RG08 3E | 2.5 | 3.0 | 6.0 | |
| RG14 2E | 0.25 | 0.3 | 0.6 | |
| RG14 2H | 0.5 | 0.6 | 1.2 | |
| RG14 2K | 0.8 | 1.0 | 2.0 | |
| RG14 3C | 1.6 | 1.5 | 3.0 | |




## Dimensions




*RG14 2E is color code indication only.
*Product type of RGxx2H and RGxx2K is non-indication.
*Coating type of RGxx2H and RGxx2K is non-indication.
*Rated power of RGxx2H and RGxx2K is non-indication.
*Brand name of RGxx2H is non-indication.
*T.C.R of RGxx2H and RGxx2K, RGxx3C is non-indication.

## Temperature coefficient of resistance

| Symbol | K | V |
|---|---|---|
| T.C.R [ppm/degs.C] | ±100 | ±300 |

## Resistance tolerance

| Symbol | F | G | J |
|---|---|---|---|
| Tolerance [%] | ±1 | ±2 | ±5 |

## Production resistance value range

| Product type | Temperature Coefficient of resistance | Production resistance value range [Mohm] | | | | |
|---|---|---|---|---|---|---|
| | | Rated power | | | | |
| | | 2E | 2H | 2K | 3C | 3E |
| RG08 | K | - | 1~10 | 1~10 | 1~30 | - |
| | V | - | 1~510 | 1~510 | 1~510 | 1~510 |
| RG14 | K | 0.301~10 | 1~10 | 1~10 | 1~30 | - |
| | V | 0.301~100 | 1~510 | 1~510 | 1~510 | - |

## Dimensions [mm]

| Product type | D | L | d | L1 | C |
|---|---|---|---|---|---|
| RG08 2H | 3.0±0.5 | 9.0±1.0 | 0.6±0.05 | 38±3 | - |
| RG08 2K | 3.0±0.5 | 13.0±1.0 | 0.6±0.05 | 38±3 | - |
| RG08 3C | 5.0±0.5 | 15.0±1.5 | 0.8±0.05 | 38±3 | - |
| RG08 3E | 7.5±1.0 | 24.0±1.5 | 0.8±0.05 | 38±3 | - |
| RG14 2E | 2.3±0.2 | 6.3±0.5 | 0.6±0.05 | 27±2 | 7.5 or less |
| RG14 2H | 3.6±0.5 | 9.0±0.5 | 0.6±0.05 | 27±2 | 10.5 or less |
| RG14 2K | 3.6±0.5 | 13.5±1.0 | 0.6±0.05 | 38±3 | 15.0 or less |
| RG14 3C | 5.5±0.5 | 16.0±1.5 | 0.8±0.05 | 38±3 | 18.5 or less |

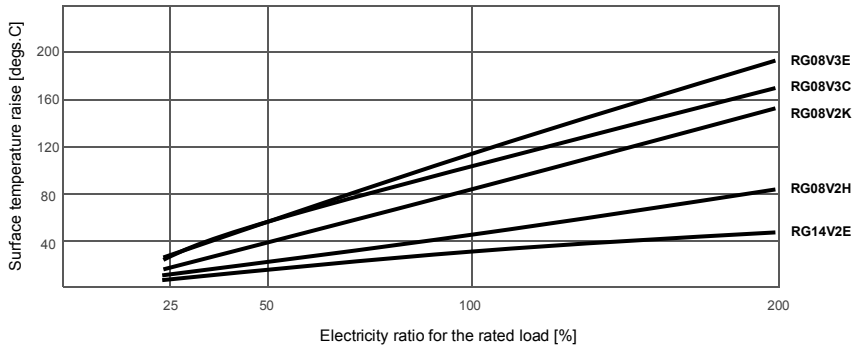
## Materials

| | |
|---|---|
| Insulation coating | epoxy resin (RG14) |
| | silicone resin (RG08) |
| Resistive film | Metal glaze |
| Lead wire | annealed copper wire |
| Core | ceramic |

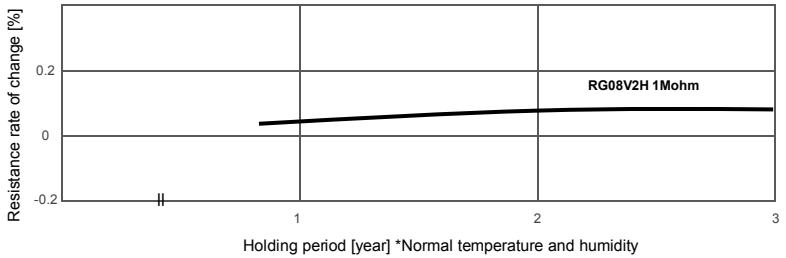
## General specifications

| | RG |
|---|---|
| Storage temp. range | -10 to +50 degrees C |
| Relative humidity | 85%RH (No condensation) |

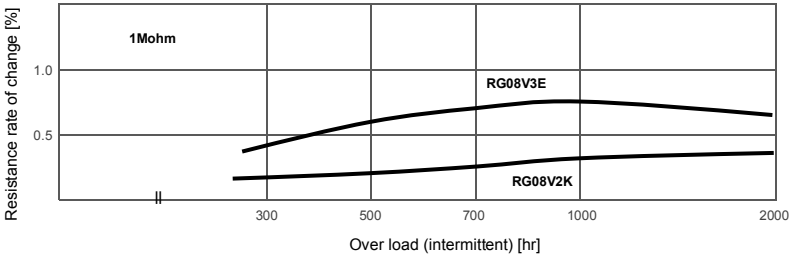
## Surface temperature raise



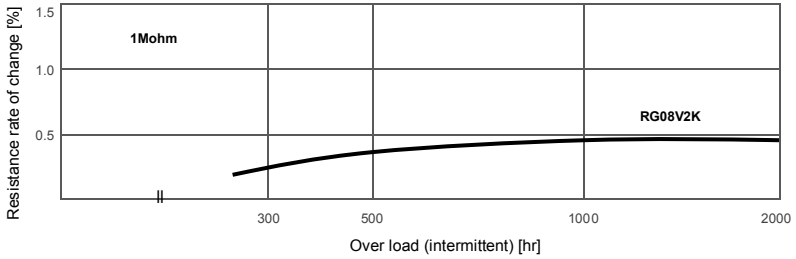

## Secular variation




## Humidity load life test




## Rated load life test [70degs.C]




## Performance

| Performance test contents | | Performance of Correctohm-RG | JIS C 5202 |
|---|---|---|---|
| Electric | Resistance value | Rate value | 5.1 |
| | T.C.R | Rate value | 5.2 |
| | Overload (short time) | ±(0.25%+0.05ohm) | 5.5 |
| | Insulation resisrance | 10,000Mohm Min. (*RG14) | 5.6 |
| | Voltage proof | ±(0.25%+0.05ohm) (*RG14) | 5.7 |
| Mechanic | Terminal strength | ±(0.25%+0.05ohm) | 6.1 |
| | Vibration resistance | ±(0.25%+0.05ohm) | 6.3 |
| | Solder dip resistance | ±(0.25%+0.05ohm) | 6.4 |
| | Solderability | 95% Min. | 6.5 |
| | Solvent resistance | Appearance not having a problem. | 6.9 |
| Weatherability | Temperature cycling test | ±(0.25%+0.05ohm) | 7.4 |
| | Humidity resistance | ±(1.0%+0.05ohm) | 7.9 |
| | Rated load | ±(2.0%+0.05ohm) | 7.10 |

| Performance test contents | | Performance of Correctohm-RG | JIS C 5201-1 |
|---|---|---|---|
| Electric | Mono pulse high voltage overload test (Surge test) | ±(2%+0.05ohm) | 4.27 |
| | Cycle pulse high voltage overload test (Pulse test) | ±(2%+0.05ohm) | 4.28 |

Note

* Use to the apparatus which may cause an in-vehicle apparatus (including the train), medical equipment, an aviation apparatus, an apparatus about human life including the ship apparatus and the serious damage;