



玻璃釉高壓高阻值電阻
Resistance: 1G ~ 10G ohm

MGHO Series
Metal Glaze Resistor (High Ohm)

◆ SCOPE:

This specification is available for Metal Glaze Resistor manufactured by Mayloon.
The resistor is manufactured highly quality-controlled process and guaranteed high reliability.

◆ STANDARD MEASURING CONDITIONS

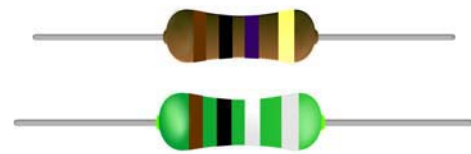
Temperature 20±2°C, Humidity 65±5%.
Being on about the judgment, measurements can be made within the following
Temperature 5 ~ 35°C, Humidity 45 ~ 85%.

◆ ORDERING

Example: MGHO0207TJ1G

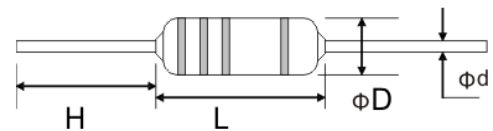
| Type | Power | Package | Tolerance | Resistance |
|----------|-------|-----------|-----------|-------------|
| MGHO0204 | 1/8W | T = T/Box | H = ±3% | 104 = 100KΩ |
| MGHO0207 | 1/4W | B = Bulk | J = ±5% | 105 = 1MΩ |
| MGHO0410 | 1/2W | R = Reel | K = ±10% | 106 = 10MΩ |
| MGHO0516 | 2W | | | 107 = 100MΩ |
| | | | | 1G = 1GΩ |

◆ Figure: Body Color



◆ EXTERNAL DIMENSIONS

| Type | Power | Dimensions (mm) | | | |
|----------|-------|-----------------|---------|-----------|--------|
| | | L | ΦD | Φd | H |
| MGHO0204 | 1/8W | 3.3±0.5 | 1.8±0.5 | 0.45±0.03 | 28±2.0 |
| MGHO0207 | 1/4W | 6.3±0.5 | 2.5±0.5 | 0.55±0.03 | 28±2.0 |
| MGHO0410 | 1/2W | 9.0.0±0.5 | 3.2±0.5 | 0.65±0.03 | 26±2.0 |
| MGHO0516 | 2W | 15.5±1.0 | 5.0±0.5 | 0.78±0.03 | 32±2.0 |



* The type designation shall be in the following form and as specified.

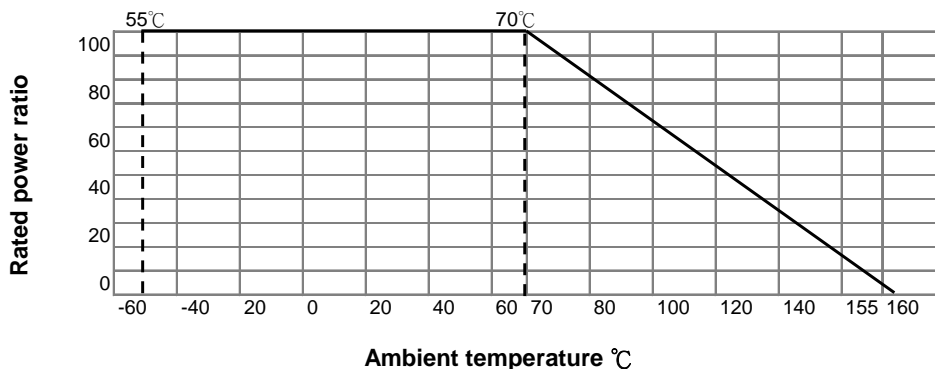
◆ RATED POWER

| Type | Power | Maximum Voltage | | Dielectric withstanding Vol | | Resistance (Ω) | | Operating temperature Range |
|------------------------------|---|-----------------|----------|-----------------------------|-------|----------------|----------|-----------------------------|
| | | Working | Overload | Silicon | Epoxy | Standard | High ohm | |
| MGHO0204 | 1/8W | DC500V | 1000V | 300V | 400V | 100K~910M | 1G ~ 10G | -55°C ~ 155°C |
| MGHO0207 | 1/4W | DC1600V | DC2000V | 400V | 500V | 100K~910M | 1G ~ 10G | |
| | | DC1800V | AC1500V | | | | | |
| MGHO0410 | 1/2W | DC2000V | 2500V | 500V | 700V | 100K~910M | 1G ~ 10G | |
| MGHO0516 | 2W | DC3500V | 4000V | 700V | 1200V | 100K~910M | 1G ~ 10G | |
| T.C.R: | ±200ppm/°C, ±100ppm/°C. ±50ppm/°C. | | | | | | | |
| Tolerance: | F: ±1% E24, J: ±5% E24, K: ±10% E12. >1G (±10%) E12. | | | | | | | |
| Operating Temperature Range: | -55°C ~ 155°C Rating ambient Temp. ±70°C | | | | | | | |

* Rated power is maximum power which can continuously loaded at specified ambient temper mined 70°C, however when the ambient temperatures exceeds 70°C, rated power should be determined from the dating curve of Fig 1.

* Silicon Resin: Brown (Flame-Proof), Epoxy Resin: Light Blue.

◆ POWER DATING CURVE

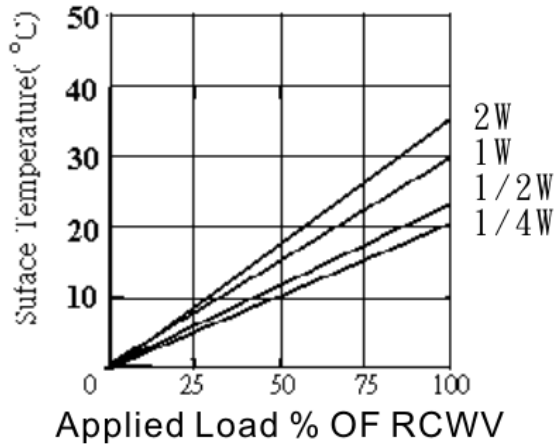


MAYLOON ELECTRONIC CO., LTD.,

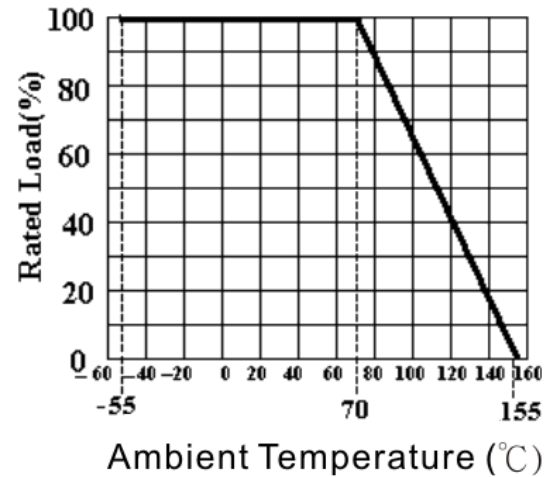
◆ PERFORMANCE SPECIFICATIONS

| TEST ITEMS | Test Methods | SPECIFICATIONS |
|---------------------------------|--|---|
| Short time overload | Rated Voltage X 2.5 or Max. overload Vol., whichever is lower, for 5sec. | ± (1.0% + 0.05Ω) |
| Moisture resistance | 40°C ± 2°C, 90%~95%RH, 1000h 90 min 【ON】 30 min 【OFF】 | ± (5.0% + 0.05Ω) |
| Load life | 1000hours at rated voltage, 70°C 90 min 【ON】 30 min 【OFF】 | ± (3.0% + 0.05Ω) |
| Insulation resistance | 500±50V DC During 1 min V-Block method | ±10,000MΩ |
| Dielectric withstanding voltage | In V-Block for 60 seconds | 1/4W 400V 1W 800V 1/2W 500V 2W 2000V |
| Resistance to soldering | 260°C ± 5°C, 10s ± 1s or 350°C ± 10°C, 3.5s ± 0.5s | ± (1.0% + 0.05Ω) |
| Temperature cycling | | ± (1.0% + 0.05Ω) |
| Terminal strength | Direct load for 10 sec. In the direction off the terminal leads. | Tensile: ≥ 2.5kg |
| Anti-surge characteristics | R ≥ 100KR: 8KV/10nF | Rmax. ± 10% |
| | R < 100KR: 10KV/10nF | No damage |
| | 2.5sec on/off 10 Cycle | |
| Intermittent overload | 4 times RCWV for 10000 cycles (1 sec on, 25 sec off) | ±(1%+-0.5Ω) |

表面溫度上升曲線 surface temp.rise

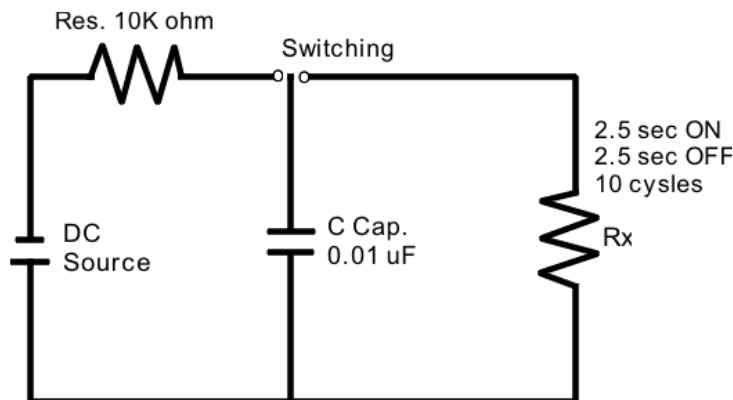


POWER GRAPH



◆ High Voltage Surge Test

10 discharges from a 10nf capacitor charged to Vmax :12 discharges/min
no evidence of flash over , mechanical damage , arching or , insulation breakdown.



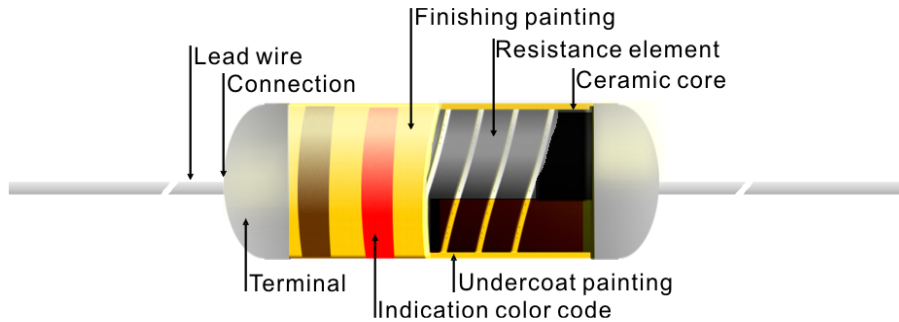


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Resistance: 1G ~ 10G ohm

MGHO Series
Metal Glaze Resistor (High Ohm)

◆ STRUCTURE DIAGRAM

The construction of resistor (MGHO Series) shall be Figure.



| Item | Material |
|--------------------|--|
| Ceramic Core | High alumina ceramic is used |
| Resistance element | The resistor element shall consist of metal glaze film. |
| Terminal | Tinned iron cap. |
| Connection | The lead wire, Which is elated with solder, shall be mounted to the caps by welding process. |
| Lead Wire | Soldered or tinned annealed copper wire. |
| Undercoat Painting | Electric insulation varnish. |
| Finishing painting | Epoxy resin is used. |
| Induction | Color code. |

◆ Painting Resistor body color

| | | |
|-----|-------------|---|
| (1) | MGHO series |  Epoxy Resin: Green (Flame-Proof) |
| (2) | | Silicon Resin: Brown (Flame-Proof)  |

◆ PACKAGE:

| Type | Power | Form | Dimensions (mm) | | | Quantity |
|----------|-------|------|-----------------|-----|-----|----------|
| | | | W | H | L | |
| MGHO0204 | 1/8W | T52 | 80 | 75 | 264 | 5000 pcs |
| MGHO0207 | 1/4W | T52 | 80 | 105 | 264 | 5000 pcs |
| MGHO0410 | 1/2W | T52 | 80 | 46 | 264 | 1000 pcs |
| MGHO0414 | 1W | T73 | 103 | 82 | 264 | 1000 pcs |
| MGHO0516 | 2W | T73 | 103 | 82 | 264 | 1000 pcs |

