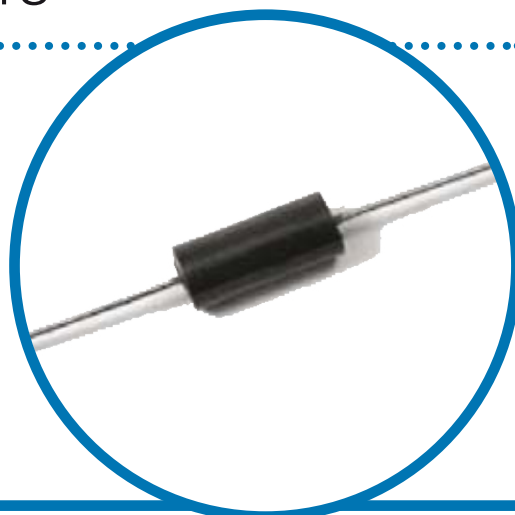


# Thick Film Semi-Precision Metal Glaze™ Power Resistors

## GS-3 Series

- Superior surge performance
- Resistance range from 1Ω - 3MΩ
- Standard tolerances of ±1%, ±2%, ±5%
- Power rating of 3W @25°C; 2W @70°C
- Effective as carbon composite replacement



## Electrical Data

| Part Number | Power Rating (Watts)         | Resistance Range (Ohms) | Tolerance (±%) | TCR (±ppm/°C)                 | Maximum Operating Voltage (Volts) | Dielectric Withstanding Voltage (Volts) |
|-------------|------------------------------|-------------------------|----------------|-------------------------------|-----------------------------------|-----------------------------------------|
| <b>GS-3</b> | 2.0 (@ 70°C)<br>3.0 (@ 25°C) | 1.0 - 3M                | 1, 2, 5        | 50 (>10Ω)<br>100, 200 (≤ 10Ω) | 1000                              | 1000                                    |

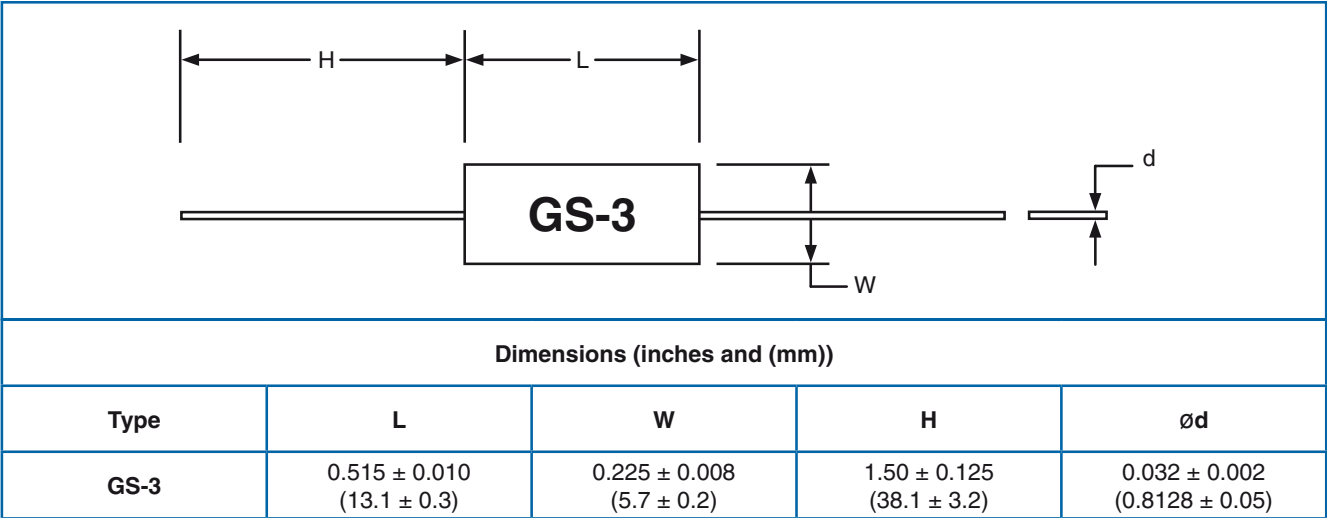
## Environmental Data

| Test                         |         | Maximum ΔR Limits |              |             |        |
|------------------------------|---------|-------------------|--------------|-------------|--------|
|                              |         | MIL-R-26          | MIL-R-10509D | MIL-R-22684 | GS-3   |
| <b>TCR</b>                   | ±ppm/°C | 30                | 100          | 200         | 100/50 |
| <b>Load life</b>             | %ΔR     | 0.5               | 1.0          | 2.0         | 2.0    |
| <b>Short term overload</b>   | %ΔR     | 0.20              | 0.50         | 0.50        | 0.20   |
| <b>Moisture</b>              | %ΔR     | 0.20              | 1.50         | 1.50        | 0.40   |
| <b>Temperature Cycling</b>   | %ΔR     | 0.20              | 0.50         | -           | 0.20   |
| <b>Solder Effect</b>         | %ΔR     | -                 | 0.50         | 0.50        | 0.20   |
| <b>Termination Strength</b>  | %ΔR     | 0.10              | 0.20         | 0.50        | 0.10   |
| <b>Shock</b>                 | %ΔR     | 0.10              | 0.50         | 0.50        | 0.10   |
| <b>Vibration</b>             | %ΔR     | 0.10              | 0.50         | 0.50        | 0.10   |
| <b>Operating Temperature</b> |         | -55°C to +175°C   |              |             |        |

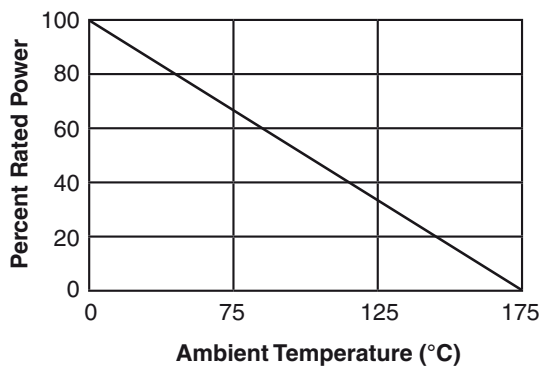
### General Note

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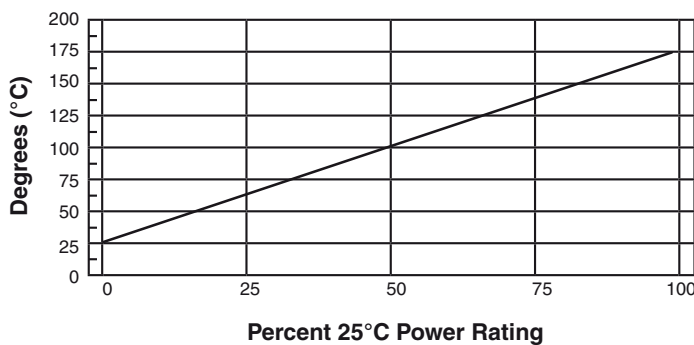
Physical Data



Power Derating Chart



Hot Spot Temperature +25°C Ambient



## Ordering Data

|                                  |                                                                                                                                                                                                                                                                        |   |          |            |             |          |           |            |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------|------------|-------------|----------|-----------|------------|
| <b>Sample Part No.</b> .....     | <b>GS</b>                                                                                                                                                                                                                                                              | - | <b>3</b> | <b>100</b> | <b>1000</b> | <b>J</b> | <b>LF</b> | <b>SLT</b> |
| <b>IRC Type</b> .....            | GS = (Fixed Film Resistor High Stability)                                                                                                                                                                                                                              |   |          |            |             |          |           |            |
| <b>Power Rating</b> .....        | 3 = 3W @ 25°C / 2W @ 70°C                                                                                                                                                                                                                                              |   |          |            |             |          |           |            |
| <b>TCR Characteristics</b> ..... | 50 = ±50 ppm/°C<br>100 = ±100 ppm/°C<br>200 = ±200 ppm/°C<br>(available on values greater than 10 ohms)                                                                                                                                                                |   |          |            |             |          |           |            |
| <b>Resistance Value</b> .....    | (100 ohms and greater - First 3 significant digits plus 4th digit multiplier)<br>Example: 100 ohms = 1000, 1000 ohms = 1001, 150,000 ohms = 1503<br>(Less than 100 ohms - "R" is used to designate decimal)<br>Example: 51 ohms = 51R0, 1 ohm = 1R00, 0.25 ohms = R250 |   |          |            |             |          |           |            |
| <b>Tolerance</b> .....           | F = ±1%, G = ±2%, J = ±5%                                                                                                                                                                                                                                              |   |          |            |             |          |           |            |
| <b>RoHS Compliance</b> .....     | LF = RoHS-compliant product                                                                                                                                                                                                                                            |   |          |            |             |          |           |            |
| <b>Packaging</b> .....           | SLT = Standard Lead Tape<br>T24<br>T25                                                                                                                                                                                                                                 |   |          |            |             |          |           |            |

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