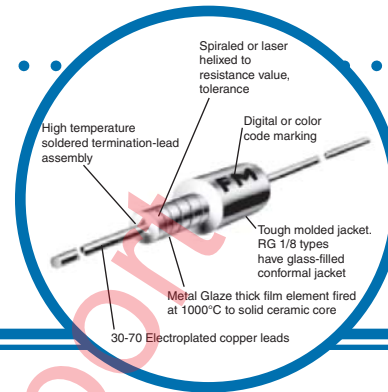


Precision Non Military Metal Glaze™ Resistors



RG Series

- Surge Capabilities
- 1/8 watt to 3 watts
- 0.4 ohm to 5.1 megohms
- ± 25 ppm/°C to ± 200 ppm/°C
- 0.5% to 5% tolerance; 0.1% in selected ranges



Electrical Data

| IRC Type | MIL Type | Marking | Tolerance (ppm/°C) | T.C. (ppm/°C) | IRC Power Rating (watts @ °C) | Maximum Voltage Rating | IRC Resistance Range (Ω) | Nominal Size | Dimension Code |
|---------------------|---------------------------|------------|------------------------|-----------------------|-------------------------------|------------------------|--------------------------|--------------|----------------|
| RG 1/8 ¹ | - | Band | 2, 5 | 200 | 1/4 @ 70 | 200 | 4.3 to 1.5M | 1/8W | 1 |
| RG 1/4 | - | Band | 5 | 200 | 1/2 @ 70 ⁵ | 250 ⁶ | 4.3 to 5.1M | 1/4W | 2 |
| RG 1/2 | - | Band | 5 | 200 | 1 @ 70 | 350 | 4.3 to 5.1M | 1/2W | 3 |
| TO-50 ¹ | - | Stamp | .5, 1 | 100 | 1/4 @ 70 | 200 | 10 to 1M | 1/8W | 1 |
| T2-50 ¹ | - | Stamp | .5, 1 | 50 | 1/8 @ 70 | 200 | 10 to 1M | 1/8W | 1 |
| T9-50 ¹ | - | Stamp | .5, 1 | 25 | 1/8 @ 70 | 200 | 10 to 1M | 1/8W | 1 |
| TF-05 ¹ | - | Band/Stamp | 1, 2, 5 | 100 | 1/4 @ 70 | 200 | .4 to 9.9 | 1/8W | 1 |
| TF-07 | - | Band/Stamp | 1, 2, 5 | 100 | 1/2 @ 70 | 250 | .4 to 9.9 | 1/4W | 2 |
| TF-20 | - | Band/Stamp | 1, 2, 5 | 100 | 1 @ 70 | 250 | .4 to 9.9 | 1/2W | 3 |
| GF-55 | Flame-Resist ² | Stamp | 1 | 50 ⁴ , 100 | 1/2 @ 70 | 250 | .4 to 2M | 1/4W | 2 |
| GF-07 | Flame-Resist ² | Stamp | 2, 5 | 100 | 1/2 @ 70 | 250 | .4 to 2M | 1/4W | 2 |
| GF-60 | Flame-Resist ² | Stamp | 1 | 50 ⁴ , 100 | 3/4 @ 70 | 350 | .4 to 2M | 1/2W | 4 |
| GF-20 | Flame-Resist ² | Stamp | 2, 5 | 100 | 3/4 @ 70 | 350 | .4 to 2M | 1/2W | 4 |
| GF-3 | Flame-Resist ² | Stamp | 1, 2, 5 | 200 | 2 @ 70 3 @ 70 | 750 | 1 to 2M | 3W | 5 |
| GS-3 | - | Stamp | 1, 2, 5 | 50 ⁴ , 100 | 2 @ 70 3 @ 70 | 1000 | 1 to 3M | 3W | 5 |
| RG-07 | - | Band | 2, 5 | 200 | 1/2 @ 70 | 250 | 4.3 to 5.1M | 1/4W | 2 |
| RG-20 | - | Band | 2, 5 | 200 | 1 @ 70 | 350 | 4.3 to 5.1M | 1/2W | 3 |
| TO-55 | - | Band/Stamp | .1, .5, 1 ³ | 100 | 1/2 @ 70 | 200 | 10 to 3.01M | 1/4W | 2 |
| T2-55 | - | Stamp | .1, .5, 1 ³ | 50 | 1/4 @ 70 | 200 | 10 to 3.01M | 1/4W | 2 |
| T9-55 | - | Stamp | .1, .5, 1 ³ | 25 | 1/4 @ 70 | 200 | 10 to 3.01M | 1/4W | 2 |
| T0-60 | - | Band/Stamp | .1, .5, 1 ³ | 100 | 3/4 @ 70 | 300 | 10 to 3.01M | 1/2W | 4 |
| T2-60 | - | Stamp | .1, .5, 1 ³ | 50 | 1/2 @ 70 | 250 | 10 to 3.01M | 1/2W | 4 |
| T9-60 | - | Stamp | .1, .5, 1 ³ | 25 | 1/2 @ 70 | 250 | 10 to 3.01M | 1/2W | 4 |

Notes:

1. Conformally coated construction on all 1/8 nominal size resistors.
2. Contact factory for details on flame-resistant specifications.
3. Only available in F tolerance above 2M ohm.
4. Below 10 ohms only available in 100 ppm.
5. 1 Watt @ 70C available - see page 87.
6. Contact factory for details on higher voltage rating.

General Note

IRC reserves the right to make changes in product specification without notice or liability. All information is subject to IRC's own data and is considered accurate at time of going to print.

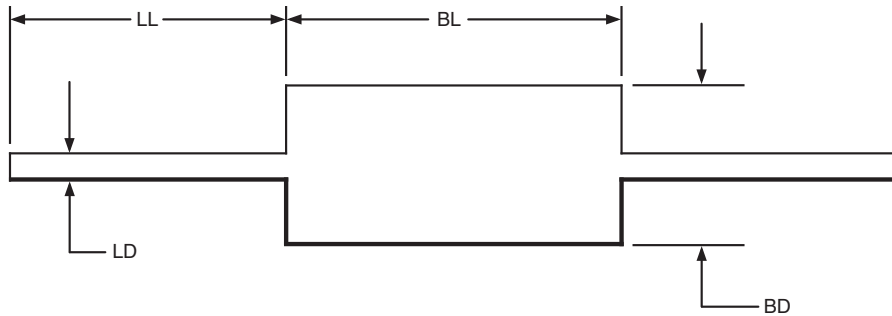
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Precision Non Military Metal Glaze™ Resistors



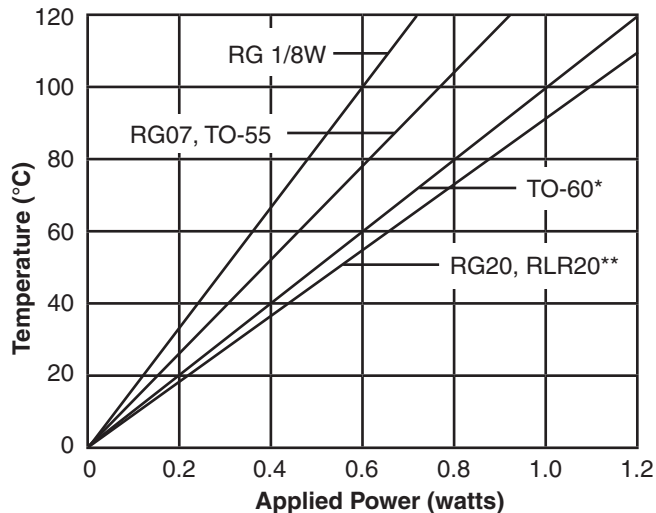
Physical Data



Dimensions

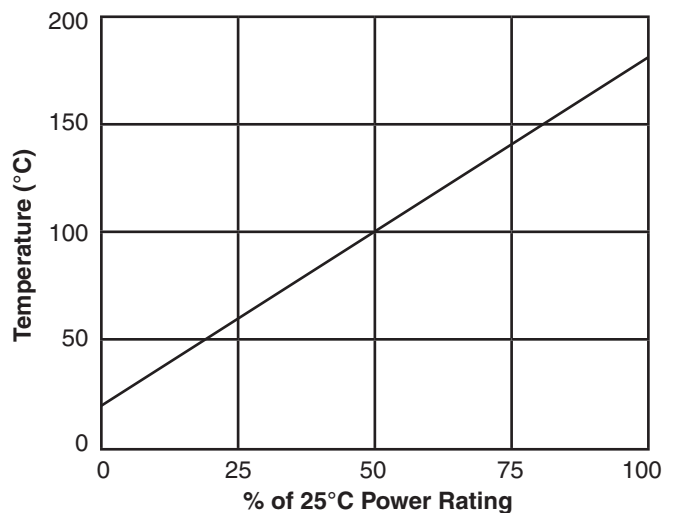
| Dim Code | Nominal Size | Body Length BL | Body Diameter BD | Lead Length LL | Lead Diameter LD | Clean Lead |
|----------|--------------|-------------------------------|------------------------------|------------------------------|--------------------------------|-----------------|
| 1 | 1/8 | 0.150 ± 0.020 (3.8 ± 0.3) | 0.066 ± 0.008 (1.7 ± 0.2) | 1.00 ± 0.125 (25.4 ± 3.2) | 0.016 ± 0.002 (0.41 ± 0.05) | 0.225 (5.7) |
| 2 | 1/4 | 0.250 ± 0.015 (6.4 ± 0.4) | 0.090 ± 0.008 (2.3 ± 0.2) | 1.50 ± 0.125 (38.1 ± 3.2) | 0.025 ± 0.002 (0.64 ± 0.05) | 0.310 (7.9) |
| 3 | 1/2W | 0.390 ± 0.010 (9.9 ± 0.3) | 0.140 ± 0.008 (3.6 ± 0.2) | 1.50 ± 0.125 (38.1 ± 3.2) | 0.032 ± 0.002 (0.81 ± 0.05) | 0.450 (11.4) |
| 4 | 1/2W | 0.390 ± 0.010 (9.9 ± 0.3) | 0.140 ± 0.008 (3.6 ± 0.2) | 1.50 ± 0.125 (38.1 ± 3.2) | 0.025 ± 0.002 (0.64 ± 0.05) | 0.450 (11.4) |
| 5 | 3W | 0.515 ± 0.010 (13.1 ± 0.3) | 0.225 ± 0.008 (5.7 ± 0.2) | 1.50 ± 0.125 (38.1 ± 3.2) | 0.032 ± 0.002 (0.81 ± 0.05) | 0.575 (14.6) |

RG 'TO' Temperature Rise



*0.025 inch leads **0.032 inch leads

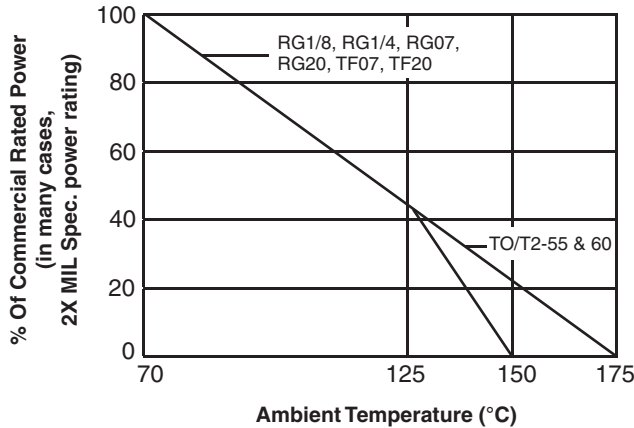
GS-3 Surface Temperature Rise



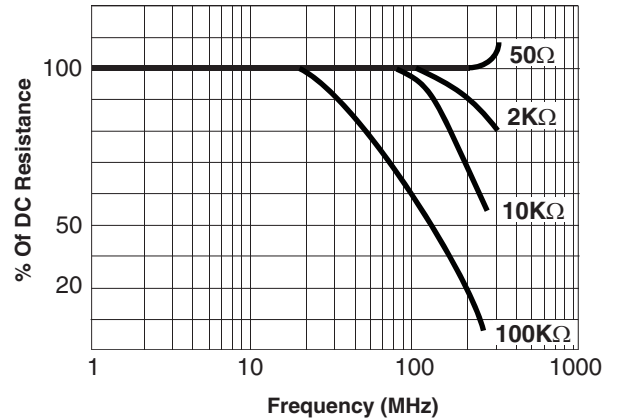
Precision Non Military Metal Glaze™ Resistors



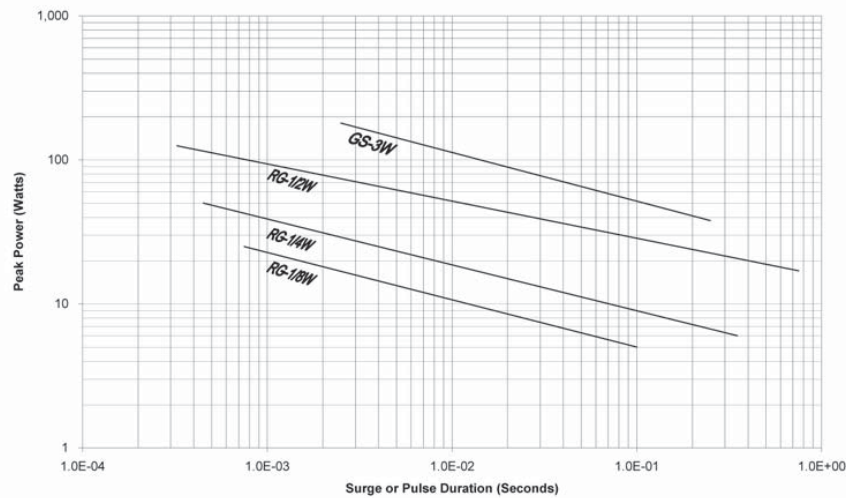
Commercial Power Derating Curve



RG 1/4 High-Frequency Characteristics



Repetitive Surge Curve



Note: Use for Repetitive pulses where the average power dissipation is not to exceed the component rating at 70°C. Please consult factory for applications subject to non-repetitive or low repetition rate surges.

Ordering Data

Sample Part No. **RG1/4** **2203** **J** **LF**

IRC Type
See specification table for types available.

Resistance
Standard EIA/MIL resistance values for metal film resistors.
See specification table for range on inside back cover.

Tolerance
F = ±1%, G = ±2%, J = ±5%
See specification table for availability.

RoHS Compliance
LF = Lead Free