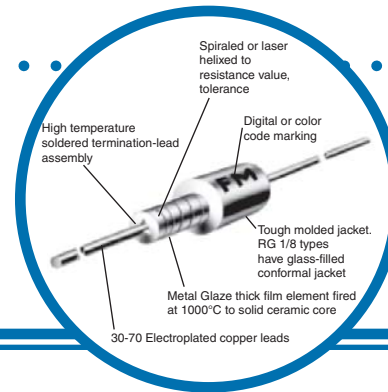


# Precision Non Military Metal Glaze™ Resistors



## RG Series

- Surge Capabilities
- 1/8 watt to 3 watts
- 0.4 ohm to 5.1 megohms
- $\pm 25$  ppm/°C to  $\pm 200$  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 <sup>1</sup>	-	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 <sup>5</sup>	250 <sup>6</sup>	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 <sup>1</sup>	-	Stamp	.5, 1	100	1/4 @ 70	200	10 to 1M	1/8W	1
T2-50 <sup>1</sup>	-	Stamp	.5, 1	50	1/8 @ 70	200	10 to 1M	1/8W	1
T9-50 <sup>1</sup>	-	Stamp	.5, 1	25	1/8 @ 70	200	10 to 1M	1/8W	1
TF-05 <sup>1</sup>	-	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 <sup>2</sup>	Stamp	1	50 <sup>4</sup> , 100	1/2 @ 70	250	.4 to 2M	1/4W	2
GF-07	Flame-Resist <sup>2</sup>	Stamp	2, 5	100	1/2 @ 70	250	.4 to 2M	1/4W	2
GF-60	Flame-Resist <sup>2</sup>	Stamp	1	50 <sup>4</sup> , 100	3/4 @ 70	350	.4 to 2M	1/2W	4
GF-20	Flame-Resist <sup>2</sup>	Stamp	2, 5	100	3/4 @ 70	350	.4 to 2M	1/2W	4
GF-3	Flame-Resist <sup>2</sup>	Stamp	1, 2, 5	200	2 @ 70 3 @ 70	750	1 to 2M	3W	5
GS-3	-	Stamp	1, 2, 5	50 <sup>4</sup> , 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 <sup>3</sup>	100	1/2 @ 70	200	10 to 3.01M	1/4W	2
T2-55	-	Stamp	.1, .5, 1 <sup>3</sup>	50	1/4 @ 70	200	10 to 3.01M	1/4W	2
T9-55	-	Stamp	.1, .5, 1 <sup>3</sup>	25	1/4 @ 70	200	10 to 3.01M	1/4W	2
T0-60	-	Band/Stamp	.1, .5, 1 <sup>3</sup>	100	3/4 @ 70	300	10 to 3.01M	1/2W	4
T2-60	-	Stamp	.1, .5, 1 <sup>3</sup>	50	1/2 @ 70	250	10 to 3.01M	1/2W	4
T9-60	-	Stamp	.1, .5, 1 <sup>3</sup>	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.

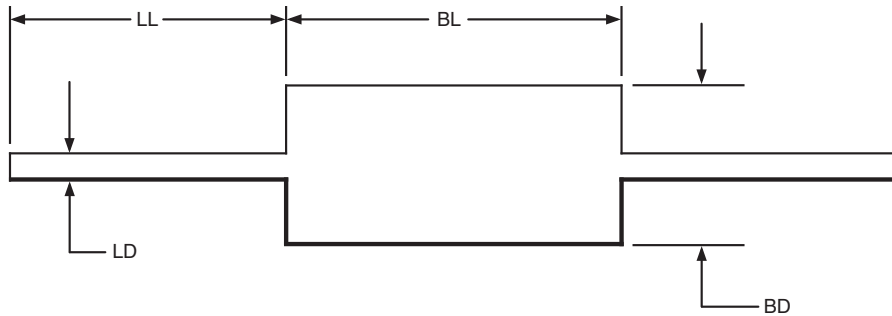
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# Precision Non Military Metal Glaze™ Resistors



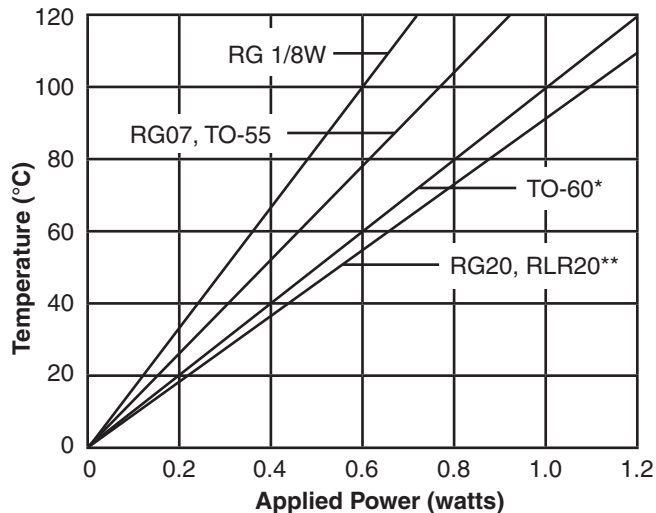
## Physical Data



Dimensions

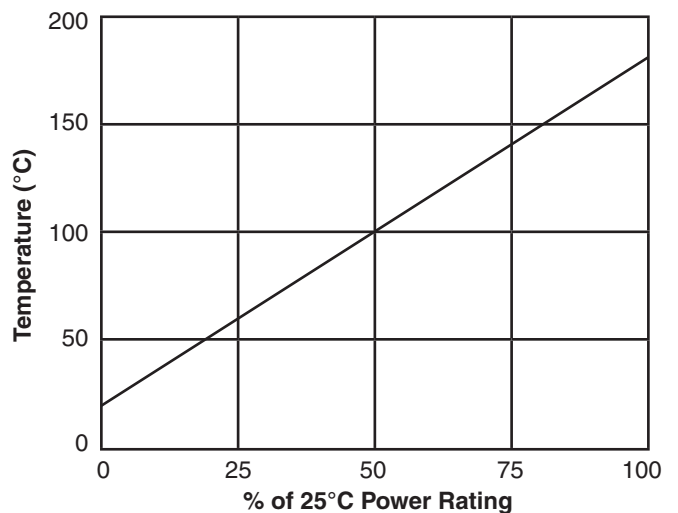
Dim Code	Nominal Size	Body Length BL	Body Diameter BD	Lead Length LL	Lead Diameter LD	Clean Lead
1	1/8	0.150 ± 0.020 (3.8 ± 0.3)	0.066 ± 0.008 (1.7 ± 0.2)	1.00 ± 0.125 (25.4 ± 3.2)	0.016 ± 0.002 (0.41 ± 0.05)	0.225 (5.7)
2	1/4	0.250 ± 0.015 (6.4 ± 0.4)	0.090 ± 0.008 (2.3 ± 0.2)	1.50 ± 0.125 (38.1 ± 3.2)	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

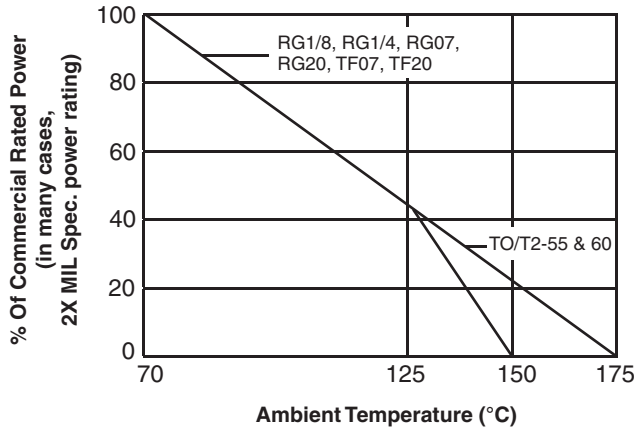
## GS-3 Surface Temperature Rise



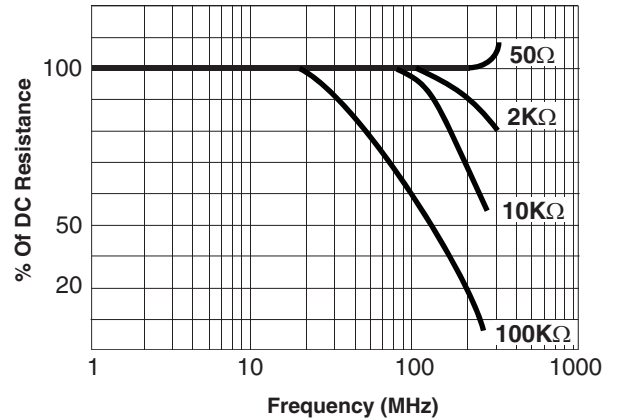
# Precision Non Military Metal Glaze™ Resistors



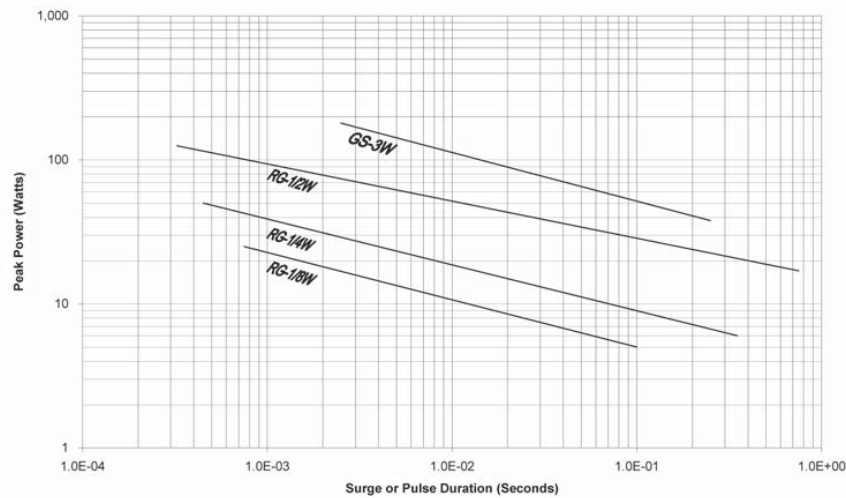
## Commercial Power Derating Curve



## 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