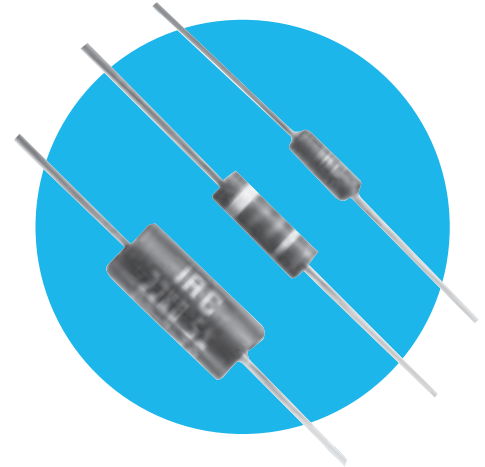


# Precision Non-Military Metal Glaze™ Resistors

## RG series

- Excellent pulse handling
- Carbon comp. alternative
- 1/8 watt to 3 watts
- 0.4 ohm to 5.1 megohms
- 0.5% to 5% tolerance; 0.1% in selected ranges
- $\pm 25$  ppm/°C to  $\pm 200$  ppm/°C



 All Pb-free parts comply with EU Directive 2011/65/EU (RoHS2)

## Electrical Data

Type	MIL Type	Marking	Tol (±%)	T.C. (ppm/°C)	Power Rating (watts @70°C)	Max. Volt. Rtg.	Resistance Range (Ω)	Nominal Size (watts)	Dimens. Code
RG 1/8 <sup>1</sup>	-	Band	2, 5	200	0.25	200	4R3 to 1M5	0.125	1
RG 1/4	-	Band	5	200	0.5 <sup>5</sup>	250 <sup>6</sup>	4R3 to 5M1	0.25	2
RG 1/2	-	Band	5	200	1	350	4R3 to 5M1	0.5	3
TF-05 <sup>1</sup>	-	Band/Legend	1, 2, 5	100	0.25	200	0R4 to 9M9	0.125	1
TF-07	-	Band/Legend	1, 2, 5	100	0.5	250	0R4 to 9M9	0.25	2
TF-20	-	Band/Legend	1, 2, 5	100	1	250	0R4 to 9M9	0.5	3
GF-55	Flame Resist <sup>2</sup>	Legend	1	50 <sup>4</sup> , 100	0.5	250	0R4, 2M	0.25	2
GF-07	Flame Resist <sup>2</sup>	Legend	2, 5	100	0.5	250	0R4, 2M	0.25	2
GF-60	Flame Resist <sup>2</sup>	Legend	1	50 <sup>4</sup> , 100	0.75	350	0R4, 2M	0.5	4
GF-20	Flame Resist <sup>2</sup>	Legend	2, 5	100	0.75	350	0R4, 2M	0.5	4
GF-3	Flame Resist <sup>2</sup>	Legend	1, 2, 5	200	2 3	750	1R to 2M	3	5
GS-3	Flame Resist <sup>2</sup>	Legend	1, 2, 5	50 <sup>4</sup> , 100	2 3	1000	1R to 3M	3	5
RG-07	-	Band	2, 5	200	0.5	250	4R3 to 5M1	0.25	2
RG-20	-	Band	2, 5	200	1	350	4R3 to 5M1	0.5	3
TO-55	-	Band/Legend	.1, .5, 1 <sup>3</sup>	100	0.5	200	10R to 3M01	0.25	2
T2-55	-	Legend	.1, .5, 1 <sup>3</sup>	50	0.25	200	10R to 3M01	0.25	2
T9-55	-	Legend	.1, .5, 1 <sup>3</sup>	25	0.25	200	10R to 3M01	0.25	2
T0-60	-	Band/Legend	.1, .5, 1 <sup>3</sup>	100	0.75	300	10R to 3M01	0.5	4
T2-60	-	Legend	.1, .5, 1 <sup>3</sup>	50	0.5	250	10R to 3M01	0.5	4
T9-60	-	Legend	.1, .5, 1 <sup>3</sup>	25	0.5	250	10R to 3M01	0.5	4

<sup>1</sup> Conformally coated construction on all Dimension Code 1 resistors. Size code 1 parts are not recommended for new designs.

<sup>2</sup> Contact factory for details on flame-resistant specifications.

<sup>3</sup> Only available in F tolerance above 2M ohm.

<sup>4</sup> Below 10 ohms only available in 100 ppm.

<sup>5</sup> 1 watt @ 70°C available - consult factory.

<sup>6</sup> Contact factory for details on higher voltage rating.

### General Note

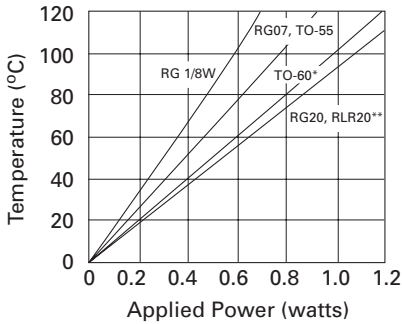
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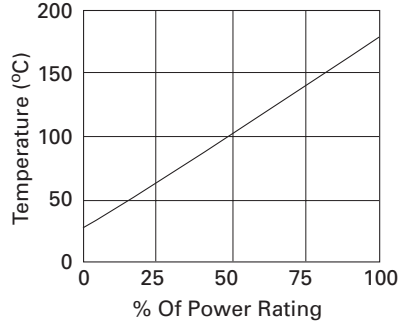
**RG series**

## Performance Data

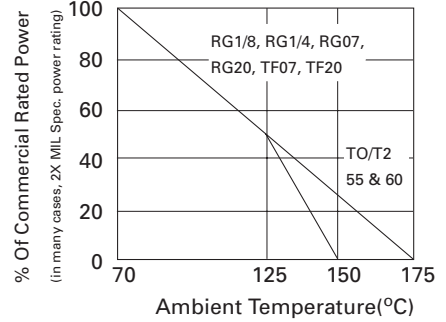
**RG 'To' Film Temp. Rise**



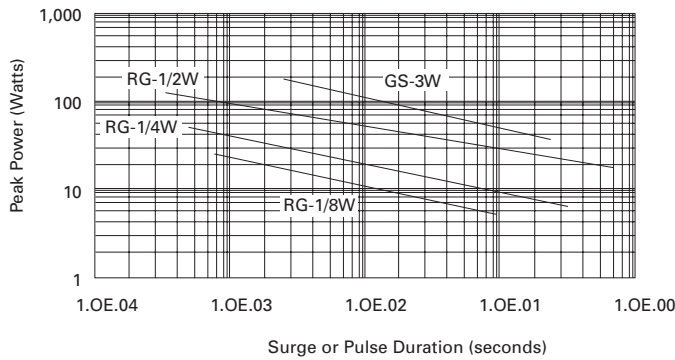
**GS-3 Surface Temp. Rise**



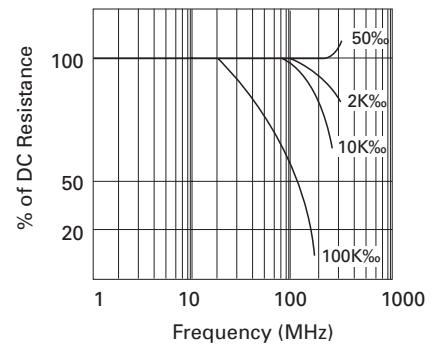
**Commercial Power Derating**



**RG Series Surge Capability for Repetitive Surges**



**RG 1/4 High-frequency Characteristics**

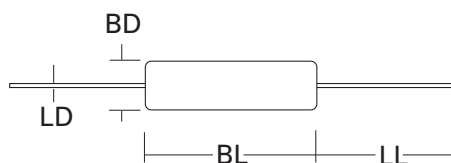


Note: Use for repetitive pulses where the average power dissipation is not to exceed the component rating at 70°C.

Surge handling capacity for low-repetitive surges may be significantly greater than shown above. Contact factory for recommendations

## Physical Data

Dimensions (mm)						
Dim Code	Nominal Size (watts)	Body Length BL	Body Dia. BD	Lead Length LL	Lead Dia. LD	Clean Lead
1	0.125	3.8±0.3	1.7±0.2	25.4±3.2	0.41±0.05	5.7
2	0.25	6.4±0.4	2.3±0.2	38.1±3.2	0.64±0.05	7.9
3	0.5	9.9±0.3	3.6±0.2	38.1±3.2	0.81±0.05	11.4
4	0.5	9.9±0.3	3.6±0.2	38.1±3.2	0.64±0.05	11.4
5	3	13.1±0.3	5.7±0.2	38.1±3.2	0.81±0.05	14.6



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RG series

## Ordering Procedure

This product has two valid part numbers:

**European (Welwyn) Part Numbers:** **RG1/4-220KJPB** (RG1/4 at 220 kilohms ±5%, SnPb finish)  
**GF07-100RFI** (GF07 at 100 ohms ±1%, Pb-free)

R	G	1	/	4	-	2	2	0	K	J	P	B
G	F	0	7	-	1	0	0	R	F	I		
1				2				3	4			

1	2	3	4		
Type	Value	Tolerance	Termination & Packing		
See Electrical Data	E24 = 3/4 characters E96 = 4/5 characters R = ohms K = kilohms M = megohms	B = ±0.1%	I = Pb-free		
		D = ±0.5%	PB = SnPb		
		F = ±1%	Dim. Codes 1 & 2	Tape	1250/reel
		G = ±2%	Dim Code 3	Pack	
		J = ±5%			

**USA (IRC) Part Numbers:** **RG1/42203J** (RG1/4 at 220 kilohms ±5%, SnPb finish)  
**GF071000FLF** (GF07 at 100 ohms ±1%, Pb-free)

R	G	1	/	4	2	2	0	3	J			
G	F	0	7		1	0	0	0	F	L	F	
1				2				3	4			

1	2	3	4
Type	Value	Tolerance	Termination
See Electrical Data	3 digits + multiplier R = ohms for values <100 ohms	B = ±0.1%	Omit for SnPb
		D = ±0.5%	LF = Pb-free
		F = ±1%	
		G = ±2%	
		J = ±5%	

### General Note

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# Mouser Electronics

Authorized Distributor

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[RG1/4 120 5%TR](#) [RG1/4 2.7M 5%TR](#) [RG1/4 220K 5%TR](#) [RG1/2 5.1K 5%](#) [RG1/4 2.2K 5%](#) [RG1/4 20 5%](#) [RG1/4 240 5%](#) [RG1/4 4.3K 5%](#) [RG1/4 5.1K 5%](#) [RG1/4 75K 5%](#) [RG1/4 820 5%](#) [RG1/2 2.2K 5%](#) [RG1/2 20K 5%TR](#) [RG1/8 1K 5%](#) [RG1/4 2.2M 5%TR](#) [RG1/2 39 5%](#) [RG1/2 43 5%](#) [RG1/4 240K 5%TR](#) [RG1/2 270 5%TR](#) [RG1/2 3.9K 5%](#) [RG1/2 62 5%](#) [RG1/2 7.5K 5%](#) [RG1/4 150K 5%](#) [RG1/4 24K 5%](#) [RG1/4 43 5%](#) [RG1/2 91 5%](#) [RG1/4 5.6K 5%](#) [RG1/4 200 5%TR](#) [RG1/2 470 5%](#) [RG1/2 82 5%](#) [RG1/4 470 5%TR](#) [TF20 6.49 1%TR](#) [RG1/2 8.2K 5%TR](#) [RG1/8 20K 5%TR](#) [RG1/8 15K 5%TR](#) [TF07 4.99 1%TR](#) [RG1/2-5.1M-5%](#)