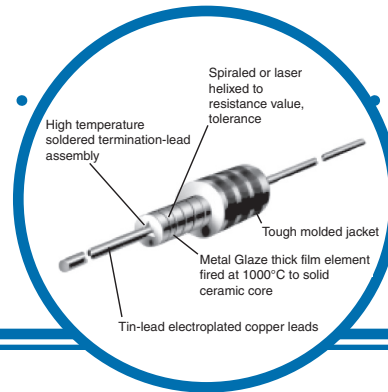


# Semi-Precision Mil-Qualified Metal Glaze™ Resistor



## RL Series

- MIL-R-22684
- $\pm 200$  ppm/ $^{\circ}$ C
- 1/4 watt to 1/2 watt
- 2% and 5% tolerance
- 4.3 ohms to 470K ohms



## Electrical Data

MIL Type	Marking	Tolerance ( $\pm\%$ )	T.C. (ppm/ $^{\circ}$ C)	Power Rating (watts)	Resistance Range (ohms)*	Nominal Size	Max Voltage Rating
RL07	Band	2, 5	200	1/4 @ 70 $^{\circ}$ C	51 to 150K	1/4W	250
RL20	Band	2, 5	200	1/2 @ 70 $^{\circ}$ C	4.3 to 470K	1/2W	350

\* For values below or above Mil Resistance, the **Non-Mil** part can be used. But keep in mind -- it is a non-mil part.

## Environmental Data

Test Conditions	MIL-R-22684 Test Limits Allowed	RL07 Max. $\%\Delta R$ ( $\pm 3\sigma$ )
Temperature Coefficient (ppm/ $^{\circ}$ C)	$\pm 200$	$\pm 200$
Low Temperature Operation	$\pm 0.50\%$	$\pm 0.10\%$
Thermal Shock	$\pm 1.00\%$	$\pm 0.15\%$
Moisture Resistance	$\pm 1.5\%$	$\pm 0.05\%$
Short Time Overload	$\pm 0.50\%$	$\pm 0.10\%$
Load Life (70 $^{\circ}$ C --- 1/4W) 1000 hours	$\pm 2.00\%$	$\pm 0.40\%$
Terminal Strength	$\pm 0.50\%$	$\pm 0.10\%$
Effect of Soldering	$\pm 0.50\%$	$\pm 0.10\%$
Shock	$\pm 0.50\%$	$\pm 0.05\%$
Vibration	$\pm 0.50\%$	$\pm 0.05\%$
High Temperature Exposure (150 $^{\circ}$ C No Load)	N/A	$\pm 0.75\%$
Rated Power for 10,000 hours at 70 $^{\circ}$ C	N/A	$\pm 0.60\%$
Temperature Rise @ 1/4W Power Load	-	See Temperature Rise Chart
Dielectric Strength	$\pm 0.50\%$	$\pm 0.05\%$

### 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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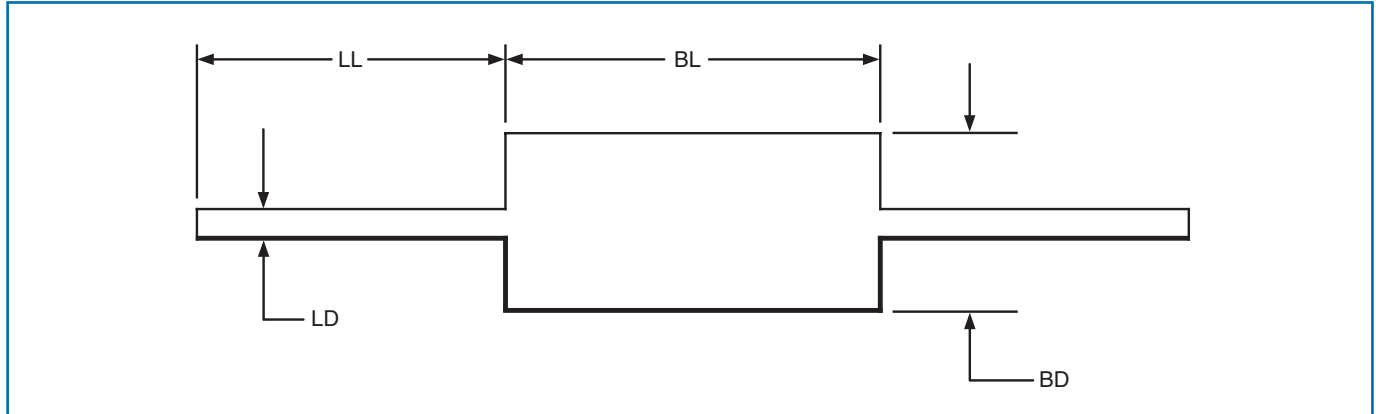


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# Semi-Precision Mil-Qualified Metal Glaze™ Resistor



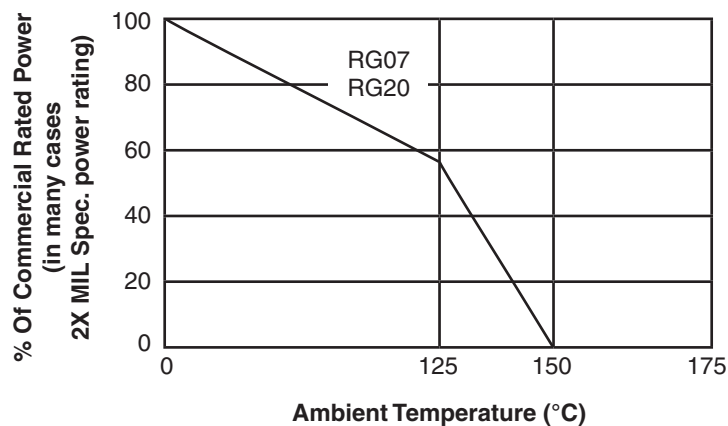
## Physical Data



Dimensions (Inches and (mm))

Nominal Size	Body Length BL	Body Diameter BD	Lead Length LL	Lead Diameter LD	Clean Lead
1/4 watt	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)
1/2 watt	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)

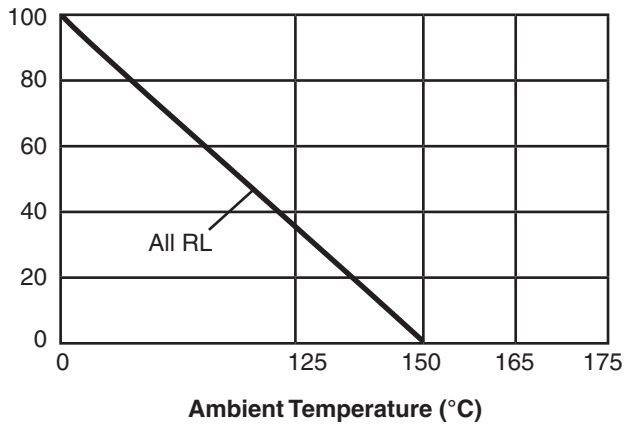
## Commercial Power Derating Chart



# Semi-Precision Mil-Qualified Metal Glaze™ Resistor



## MIL Spec. Power Derating Chart



## Ordering Data

Sample Part No. .... **RL** **07** **S** **1001** **G**

**MIL Style** .....  
RL = Fixed Film Resistor

**Power Rating** .....  
07 = 1/4 watt  
20 = 1/2 watt

**Lead Material** .....  
S = Solderable/weldable leads

**Resistance** .....  
First three digits represent significant figures;  
fourth digit is number of zeros.

**Tolerance** .....  
G = 2%, J = 5%