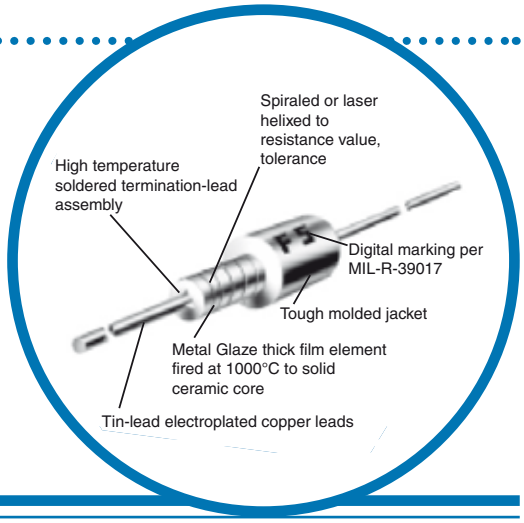
Established Reliability Mil-Qualified Metal Glaze™ Resistor

RLR Series

- **1/8 watt to 1/2 watt**
- **TCR of ±100 ppm/°C**
- **1% and 2% tolerance**
- **4.3 ohms to 3.01M ohms**
- **MIL-R-39017 approved to "S" level**



Electrical Data

MIL Type	Marking	Tolerance (±%)	T.C. (ppm/°C)	Power Rating (watts)	Resistance Range (ohms)	Nominal Size	Max Voltage Rating
RLR05/S*	Stamp	1, 2	100	1/8 @ 70°C	10 to 301K	1/8W	200
RLR07/S	Stamp	1, 2	100	1/4 @ 70°C	10 to 3.01M	1/4W	250
RLR20/S	Stamp	1, 2	100	1/2 @ 70°C	4.3 to 3.01M	1/2W	350

* Conformally coated construction on all 1/8 nominal sizes.

Environmental Data

Test Conditions	MIL-R-22684 Test Limits Allowed	RL07 Max. %ΔR (±3σ)
Temperature Coefficient (ppm/°C)	±100	±100
Low Temperature Operation	±0.25%	±0.05%
Thermal Shock	±0.25%	±0.15%
Moisture Resistance	±1.00%	±0.50%
Short Time Overload	±0.50%	±0.15%
Load Life (70°C --- 1/4W) 1000 hours	±4.00%	±0.50%
Terminal Strength	±0.25%	±0.05%
Effect of Soldering	±0.25%	±0.10%
Shock	±0.50%	±0.05%
Vibration	±0.50%	±0.05%
High Temperature Exposure (150°C No Load)	±2.00%	±0.50%
Temperature Rise @ 1/4W Power Load	-	See Temperature Rise Chart
Dielectric Strength	±0.25%	±0.05%

ESTABLISHED RELIABILITY MIL SPECIFICATIONS: RLR products listed above are qualified to the appropriate established reliability MIL Specification. In general, Metal Glaze units such as these are specified for all RLR requirements.

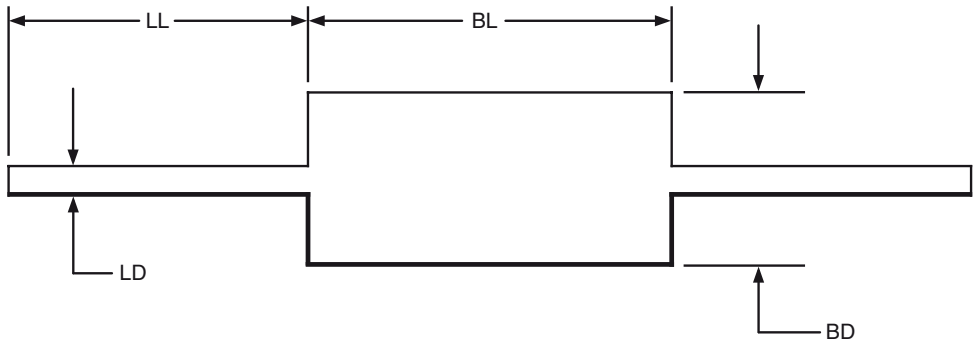
General Note

TT electronics reserves the right to make changes in product specification without notice or liability.
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Physical Data



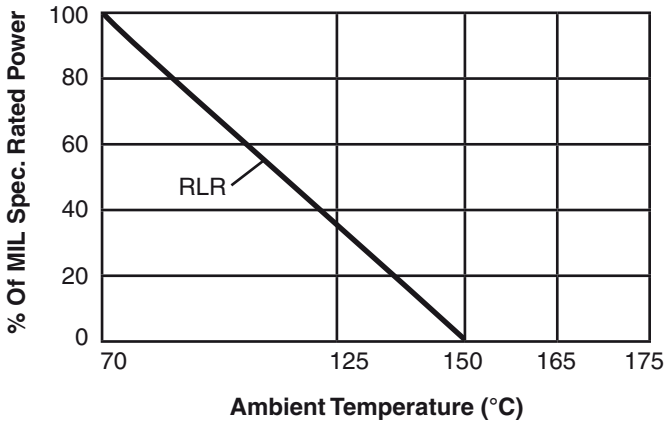
Dimensions (Inches and (mm))					
Nominal Size	**Body Length BL**	**Body Diameter BD**	**Lead Length LL**	**Lead Diameter LD**	**Clean Lead**
1/8 watt	0.150 ±0.020 (3.8 ±0.5)	0.066 ±0.008 (1.7 ±0.2)	1.00 ±0.125 (25.4 ±3.2)	0.016 ±0.002 (0.41 ±0.05)	0.187 (4.7)
1/4 watt	0.250 ±0.015 (6.4 ±0.4)	0.090 ±0.008 (2.3 ±0.2)	1.50 ±0.125 (38.1 ±3.2)	0.025 ±0.002 (0.64 ±0.05)	0.300 (7.6)
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)

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MIL Spec. Power Derating Chart



Ordering Data

Sample Part No. RLR | 20 | C | 1001 | F | S

MIL Style
RL = Fixed Film Resistor.
Established reliability.

Power Rating
05 = 1/8 watt
07 = 1/4 watt
20 = 1/2 watt

Lead Material
C = Solderable/weldable leads

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

Tolerance
F = ±1%, G = ±2%

Failure Rate
S = 0.001% for 1000 hours (60% confidence)

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