

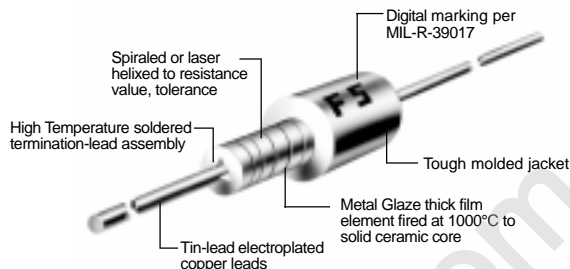
ESTABLISHED RELIABILITY MIL-QUALIFIED METAL GLAZE™ RESISTOR

ISO-9001
Registered



RLR SERIES

- 1/8 watt to 1/2 watt
- 4.3 ohms to 3.01M ohms
- 1% and 2% tolerance
- TCR of ± 100 ppm/ $^{\circ}\text{C}$
- MIL-R-39017 approved to "S" level



SPECIFICATIONS:

MIL Type	Marking	Tolerance ($\pm\%$)	TCR (ppm/ $^{\circ}\text{C}$)	MIL Power Rating (watts)	MIL Resistance Range (ohms)	Nominal Size	Max Voltage Rating
RLR05/S*	Stamp	1, 2	100	1/8 @ 70 $^{\circ}\text{C}$	10 to 301K	1/8W	200
RLR07/S	Stamp	1, 2	100	1/4 @ 70 $^{\circ}\text{C}$	10 to 3.01M	1/4W	250
RLR20/S	Stamp	1, 2	100	1/2 @ 70 $^{\circ}\text{C}$	4.3 to 3.01M	1/2W	350

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

RLR-07 PERFORMANCE:

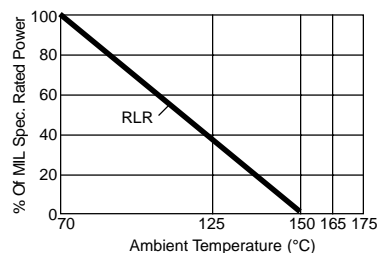
Test Conditions	MIL-R-39017 Test Limits Allowed	RLR-07 Max. $\% \Delta R (\pm 3\sigma)$
Temperature Coefficient ppm/ $^{\circ}\text{C}$	± 100	± 100
Low Temperature Operation	$\pm 0.25\%$	$\pm 0.05\%$
Thermal Shock	$\pm 0.25\%$	$\pm 0.15\%$
Moisture Resistance	$\pm 1.00\%$	$\pm 0.50\%$
Short Time Overload	$\pm 0.50\%$	$\pm 0.15\%$
Load Life (70 $^{\circ}\text{C}$ -1/4W) 1000hrs.	$\pm 4.00\%$	$\pm 0.50\%$
Terminal Strength	$\pm 0.25\%$	$\pm 0.05\%$
Effect of Soldering	$\pm 0.25\%$	$\pm 0.10\%$
Shock	$\pm 0.50\%$	$\pm 0.05\%$
Vibration	$\pm 0.50\%$	$\pm 0.05\%$
High Temperature Exposure (150 $^{\circ}\text{C}$ No Load)	$\pm 2.00\%$	$\pm 0.50\%$
Temperature Rise at 1/4W Power Load	-	See Temp. Rise Chart
Dielectric Strength	$\pm 0.25\%$	$\pm 0.05\%$

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.

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 \pm 0.020 (3.8 \pm 0.5)	0.066 \pm 0.008 (1.7 \pm 0.2)	1.00 \pm 0.125 (25.4 \pm 3.2)	0.016 \pm 0.002 (0.41 \pm 0.05)	0.187 (4.7)
1/4 watt	0.250 \pm 0.015 (6.4 \pm 0.4)	0.090 \pm 0.008 (2.3 \pm 0.2)	1.50 \pm 0.125 (38.1 \pm 3.2)	0.025 \pm 0.002 (0.64 \pm 0.05)	0.300 (7.6)
1/2 watt	0.390 \pm 0.010 (9.9 \pm 0.3)	0.140 \pm 0.008 (3.6 \pm 0.2)	1.50 \pm 0.125 (38.1 \pm 3.2)	0.032 \pm 0.002 (0.81 \pm 0.05)	0.450 (11.4)

MIL SPEC POWER DERATING:



HOW TO ORDER:

Sample Part No.:

RLR-20 C 1001 F S

MIL Style

RLR=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= $\pm 1\%$, G= $\pm 2\%$

Failure Rate

S = 0.001% for 1000 hrs. (60% confidence)

WIREWOUND AND FILM TECHNOLOGIES DIVISION

736 Greenway Road • Boone, North Carolina 28607-1860 • Tel: 828-264-8861 • Fax: 828-264-8866 • www.irctt.com