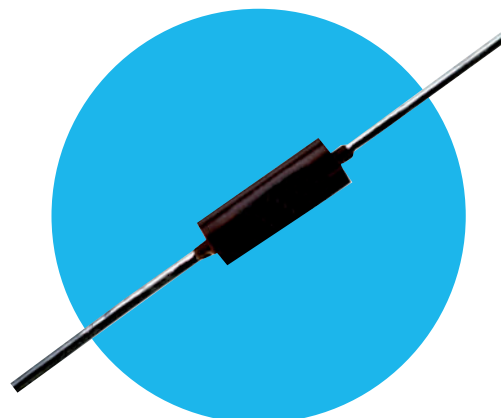


Precision Mil-Qualified Metal Glaze™ Resistor

RN Series

- 1/8 watt to 1/2 watt
- 10 ohms to 1M ohms
- 0.5% to 1% tolerance
- MIL-R-10509 ± 25 ppm/°C to ± 100



Electrical Data

MIL Type	Marking	Tolerance (±%)	T.C. (ppm/°C)	Power Rating (watts)	Resistance Range (ohms)	Nominal Size	Max Voltage Rating
RN50C*	Stamp	1	50	1/20 @ 125°C	10 to 100K	1/8W	200
RN55D	Stamp	1	100	1/8 @ 70°C	10 to 301K	1/4W	200
RN55C	Stamp	0.5, 1	50	1/10 @ 125°C	49.9 to 100K	1/4W	200
RN55E	Stamp	0.5, 1	25	1/10 @ 125°C	49.9 to 100K	1/4W	200
RN60D	Stamp	1	100	1/4 @ 70°C	10 to 1M	1/2W	300
RN60C	Stamp	0.5, 1	50	1/8 @ 125°C	49.9 to 499K	1/2W	250
RN60E	Stamp	0.5, 1	25	1/8 @ 125°C	49.9 to 499K	1/2W	250

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

Environmental Data

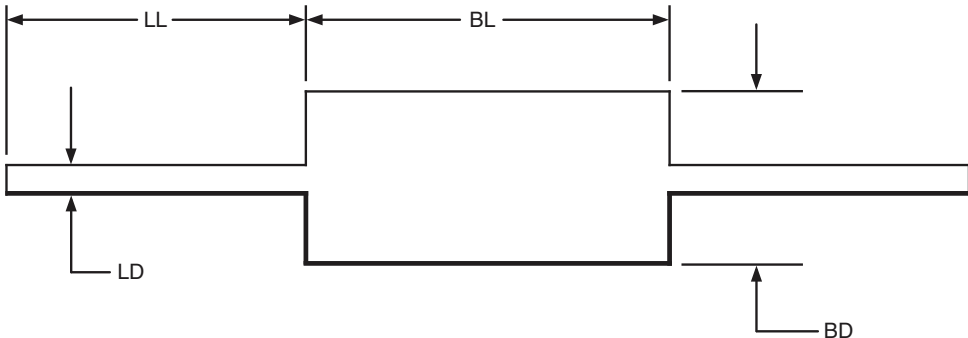
Test Conditions	MIL-R-10509 Test Limits Allowed		RN55 Max. %ΔR (±3σ)	
	RN55 (D)	RN55 (C)	T0-55	T2-55
Temperature Coefficient (ppm/°C)	+200/-500	±50	±100	±50
Low Temperature Operation	±0.50%	±0.25%	±0.10%	±0.10%
Temperature Cycling	±0.50%	±0.25%	±0.10%	±0.10%
Moisture Resistance	±1.50%	±0.50%	±0.50%	±0.50%
Short Time Overload	±0.50%	±0.25%	±0.10%	±0.10%
Load Life (70°C-1/2W, 125°C-1/100W) 1000 hours	±1.00%	±0.50%	±0.30%	±0.20%
Terminal Strength	±0.20%	±0.20%	±0.05%	±0.05%
Effect of Soldering	±0.50%	±0.10%	±0.10%	±0.10%
Shock	±0.50%	±0.25%	±0.05%	±0.05%
Vibration	±0.50%	±0.25%	±0.05%	±0.05%
High Temperature Exposure (150°C No Load)	N/A	N/A	±0.50%	±0.50%
2X Rated Power for 10,000 hours @ 70°C	N/A	N/A	±0.50%	±0.50%
Temperature Rise @ 1/4W Power Load	-	-	See Temperature Rise Chart	
Dielectric Strength	±0.50%	±0.25%	±0.05%	±0.05%

General Note

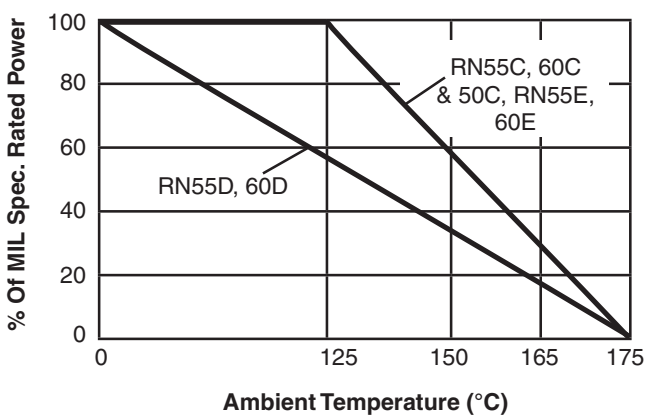
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RN Series

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)	0.225 (5.7)
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)	0.310 (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)	0.025 ±0.002 (0.64 ±0.05)	0.450 (11.4)

MIL Spec. Power Derating Chart



Ordering Data

Sample Part No.	RN	55	D	1002	F
MIL Style	RL = Fixed Film Resistor High stability				
Power Rating	50 = 1/20 watt 55 = 1/10 watt 60 = 1/8 watt				
T.C. Characteristics	D = ±100ppm/°C C = ±50ppm/°C E = ±25ppm/°C				
Resistance	First three digits represent significant figures; fourth digit is number of zeros.				
Tolerance	F = ±1%, D = ±0.5%				

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