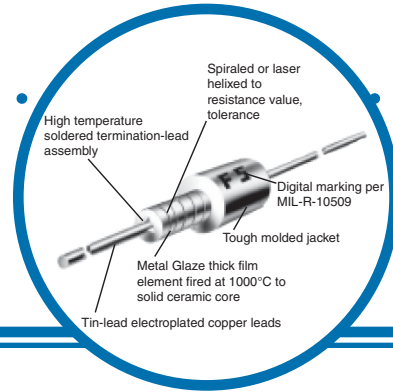


Precision Mil-Qualified Metal Glaze™ Resistor



RN Series

- 1/8 watt to 1/2 watt
- 10 ohms to 1M ohms
- 0.1% 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	0.1, 0.5, 1	50	1/10 @ 125°C	49.9 to 100K	1/4W	200
RN55E	Stamp	0.1, 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	0.1, 0.5, 1	50	1/8 @ 125°C	49.9 to 499K	1/2W	250
RN60E	Stamp	0.1, 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

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.

Wire and Film Technologies Division • 4222 South Staples Street • Corpus Christi Texas 78411 USA
Telephone: 361 992 7900 • Facsimile: 361 992 3377 • Website: www.ircrtt.com

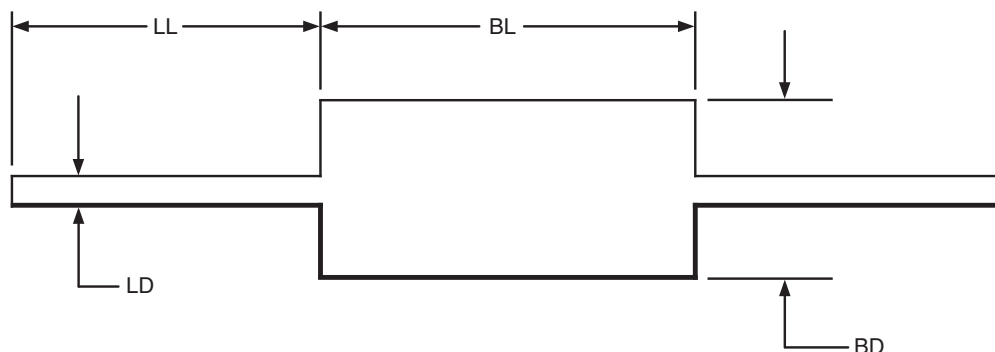


RN Series Issue March 2009 Sheet 1 of 2

Precision Mil-Qualified Metal Glaze™ Resistor



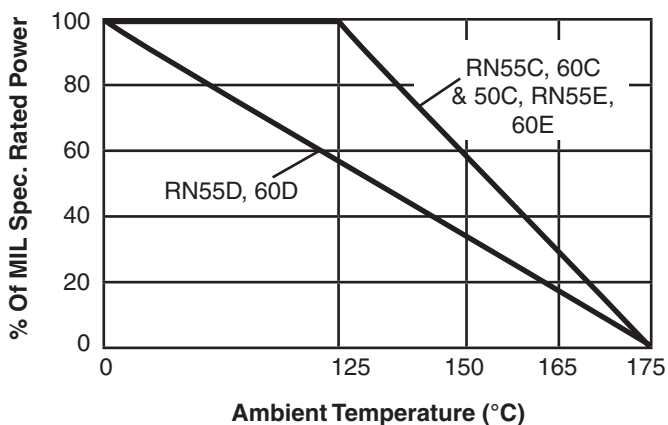
Physical Data



Dimensions (Inches and (mm))

Nominal Size	Body Length BL	Body Diameter BD	Lead Length LL	Lead Diameter LD	Clean Lead
1/8 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%, B = ±0.1%				