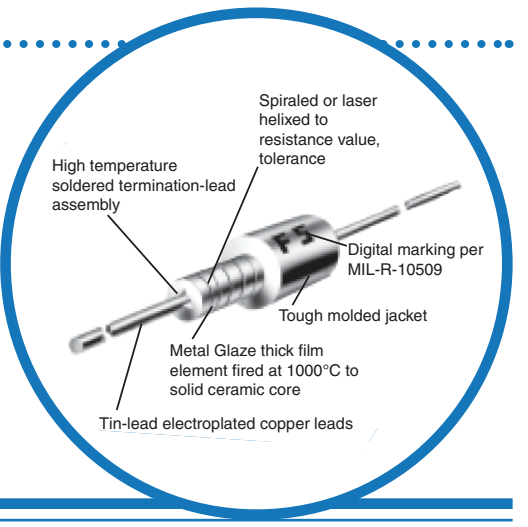
# Precision Mil-Qualified Metal Glaze™ Resistor

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.

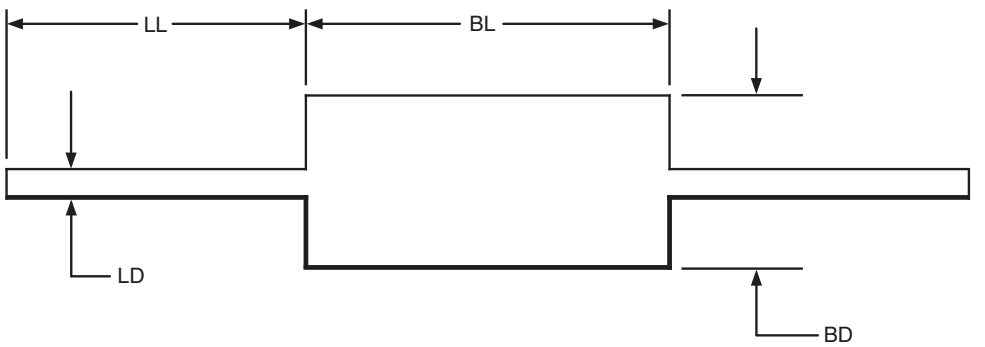
## Environmental Data

| 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**

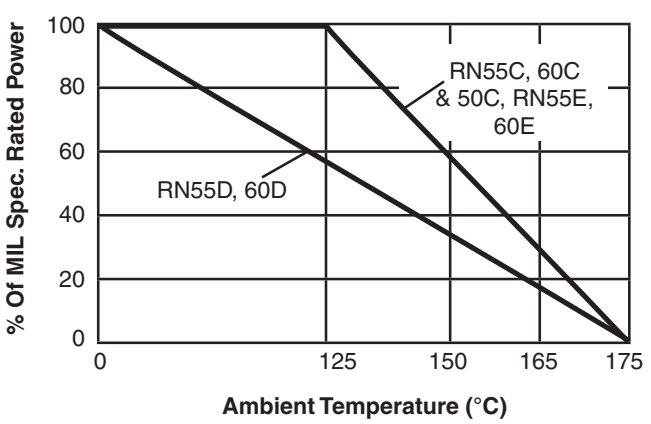
TT electronics reserves the right to make changes in product specification without notice or liability.
All information is subject to TT electronics' own data and is considered accurate at time of going to print.

# Physical Data

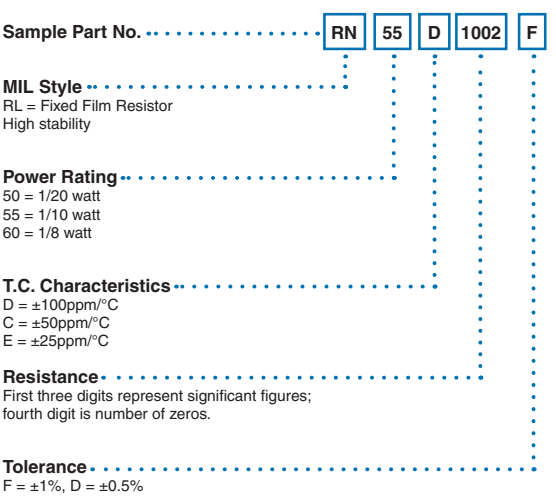



| Dimensions (Inches and (mm)) | | | | | |
|---|---|---|---|---|---|
| **Nominal Size** | **Body Length BL** | **Body Diameter BD** | **Lead Length LL** | **Lead Diameter LD** | **Clean Lead** |
| **1/8 watt** | 0.150 ±0.020 (3.8 ±0.5) | 0.066 ±0.008 (1.7 ±0.2) | 1.00 ±0.125 (25.4 ±3.2) | 0.016 ±0.002 (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

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