

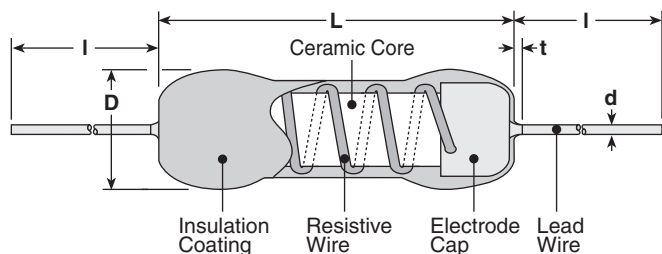
coat insulated miniature precision power wirewound resistors



features

- Resistors meeting MIL-R-26E (U and V characteristics) and surface temperature (hot spot) 350°C max.
- Resistors with a wide range of 0.1Ω ~ 62kΩ, covering applications from precision to power
- RW□N type resistors are non-inductive wound and can be used in high frequency applications.
- Marking: Black body color with alpha-numeric marking
- Products with lead-free terminations meet EU RoHS and China RoHS requirements

dimensions and construction



| Type | Dimensions inches (mm) | | | |
|---------------|-------------------------|---|---------------|-------------------------|
| | L | D | d (nom.) | I |
| RW1/2, RW1/2N | .315±.039 (8.0±1.0) | .138 ^{+.039} ₋₀ (1.6 ^{+1.0} ₋₀) | .020 (0.5) | 1.50±.118 (38.0±3.0) |
| RW1, RW1N | .413±.039 (10.5±1.0) | .106±.039 (2.7±1.0) | | |
| RW2, RW2N | .512±.039 (13.0±1.0) | .205±.039 (5.2±1.0) | .031 (0.8) | |
| RW3, RW3N | .650±.039 (16.5±1.0) | .252±.039 (6.4±1.0) | | |
| RW5, RW5N | .866±.039 (22±1.0) | .307±.059 (7.8±1.5) | .039 (1.0) | |
| RW7, RW7N | 1.24±.039 (31.5±1.0) | | | |
| RW10, RW10N | 1.81±.059 (46.0±1.5) | .366±.089 (9.3±1.5) | | |

ordering information

Pb Free Type

| RW | 1/2 | N | T | 103 | J |
|------|---|---|----------------------|---|--|
| Type | Power Rating | Winding Method | Termination Material | Nominal Resistance | Tolerance |
| | 1/2: 0.5W 1: 1W 2: 2W 3: 3W 5: 5W 7: 7W 10: 10W | Nil: Standard winding N: Non-inductive winding | T: Sn | ±3%, ±5%: 2 significant figures + 1 multiplier "R" indicates decimal on value <10Ω ±0.5%, ±1%: 3 significant figures + 1 multiplier "R" indicates decimal on value <100Ω | D: ±0.5% F: ±1% H: ±3% J: ±5% |

Packaging quantity:
 RW1/2 ~ RW1: 1,000 pieces
 RW2 ~ RW7: 500 pieces
 RW10: 300 pieces

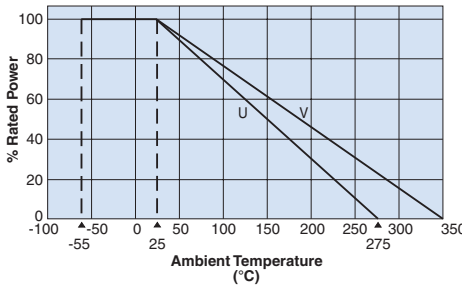
applications and ratings

| Part Designation | Power Rating | | Resistance Range (Ω) | | | | T.C.R. (ppm/ $^{\circ}$ C) | Max. Working Voltage | Max. Overload Voltage |
|------------------|--------------|------|--|--|--|--|---|----------------------|-----------------------|
| | U | V | D \pm 0.5% (E24 • E96 25x10 ⁰ •50x10 ⁰) | F \pm 1% (E24 • E96 25x10 ⁰ •50x10 ⁰) | H \pm 3% (E24 & 25x10 ⁰ •50x10 ⁰) | J \pm 5% (E24 & 25x10 ⁰ •50x10 ⁰) | | | |
| RW1/2 | 0.5W | — | 10 - 2.61k | 10 - 2.61k | 0.47 - 2.7k | 0.47 - 2.7k | \pm 20:R \geq 10 Ω \pm 50:1 Ω \leq R <10 Ω \pm 90:R<1 Ω | 80V | 150V |
| RW1/2N | | | — | 10 - 2.37k | 10 - 2.4k | 10 - 2.4k | | | |
| RW1 | 1.0W | — | 1 - 5.11k | 1 - 5.11k | 0.1 - 5.1k | 0.1 - 5.1k | | 130V | 300V |
| RW1N | | | — | 10 - 3.74k | 10 - 3.6k | 10 - 3.6k | | | |
| RW2 | 2.0W | 3.0W | 1 - 10k | 1 - 10k | 0.1 - 10k | 0.1 - 10k | | 140V | 500V |
| RW2N | | | — | 15 - 10k | 10 - 10k | 10 - 10k | | | |
| RW3 | 3.0W | 5.0W | 1 - 15k | 1 - 15k | 0.1 - 15k | 0.1 - 15k | | 200V | 600V |
| RW3N | | | — | 15 - 15k | 15 - 15k | 15 - 15k | | | |
| RW5 | 5.0W | 7.0W | 1 - 30.1k | 1 - 30.1k | 0.1 - 30k | 0.1 - 30k | | 400V | 700V |
| RW5N | | | — | 20 - 29.4k | 20 - 30k | 20 - 30k | | | |
| RW7 | 7.0W | 10W | 1 - 45.3k | 1 - 45.3k | 0.1 - 47k | 0.1 - 47k | 600V | 800V | |
| RW7N | | | — | 36 - 44.2k | 36 - 43k | 36 - 43k | | | |
| RW10 | 10W | 14W | 1 - 60.4k | 1 - 60.4k | 0.1 - 62k | 0.1 - 62k | 1000V | 1500V | |
| RW10N | | | — | 62 - 49.9k | 62 - 51k | 62 - 51k | | | |

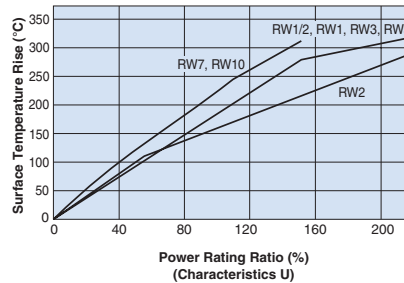
Operating Temperature Range: Characteristic U: -55 $^{\circ}$ C ~ +275 $^{\circ}$ C, V: -55 $^{\circ}$ C ~ +350 $^{\circ}$ C

environmental applications

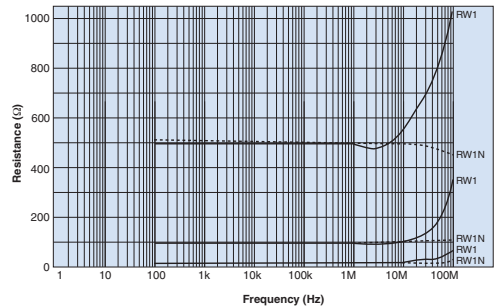
Derating Curve



Surface Temperature Rise



Frequency Characteristics



Performance Characteristics

| Parameter | Requirement $\Delta R \pm$ (% + 0.05 Ω) | Test Method |
|-----------------------------|---|--|
| Resistance | Within regulated tolerance | 25 $^{\circ}$ C |
| T.C.R. | Within specified T.C.R. | U: +25 $^{\circ}$ C/-55 $^{\circ}$ C, +25 $^{\circ}$ C/+125 $^{\circ}$ C and +25 $^{\circ}$ C/+275 $^{\circ}$ C V: +25 $^{\circ}$ C/-55 $^{\circ}$ C, +25 $^{\circ}$ C/+125 $^{\circ}$ C and +25 $^{\circ}$ C/+350 $^{\circ}$ C |
| Overload (Short time) | 0.2%: U | Rated power x 5 or Max. overload voltage, whichever is lower for 5 seconds |
| | 2%: V | Rated power x 10 or Max. overload voltage, whichever is lower for 5 seconds |
| Resistance to Solder Heat | 0.1% | 350 $^{\circ}$ C \pm 10 $^{\circ}$ C, 3 seconds \pm 0.5 seconds or 260 $^{\circ}$ C \pm 5 $^{\circ}$ C, 10 seconds \pm 1 second |
| Moisture Resistance | 0.2%: U 2%: V | Power rating x 1/10, 40 $^{\circ}$ C, 90 - 95% RH, 1000 hours, 1.5 hr ON/0.5 hr OFF cycle |
| Endurance @ 25 $^{\circ}$ C | 0.5%: U 3%: V | 25 $^{\circ}$ C, 2000 hours 1.5 hr ON/0.5 hr OFF cycle |
| High Temperature Exposure | 0.2%: U | 275 $^{\circ}$ C ₋₀ , 250 hours |
| | 2%: V | 350 $^{\circ}$ C ₋₀ , 250 hours |