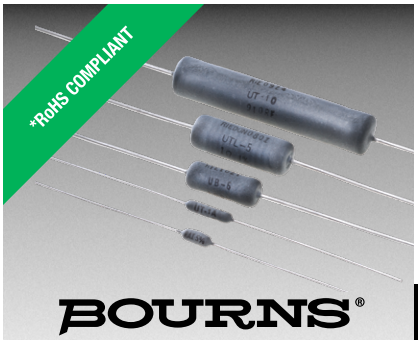



## Features

- Formerly a Riedon™ product
- Resistances 0.02 to 320k Ω
- Resistance tolerances as low as ±0.01 %
- Power rating: 1 to 13 watts
- Excellent pulse handling
- Low TCR: ±20 PPM/°C standard
- Operating temperature range: -55 °C to +350 °C ("V" Rating )
- Designed to MIL-R-26 / MIL-R-39007 power ratings
- Silicone coated power resistor
- Non-inductive windings available
- RoHS compliant*

# UT Series – Riedon™ High Temperature Power Resistors by Bourns

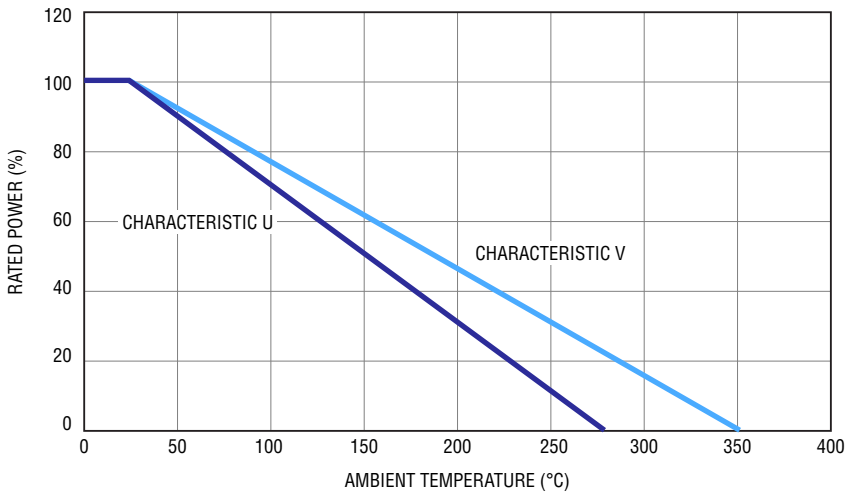
## Specifications

| Specification | Value |
|---|---|
| Tolerances | ±0.01 % to ±10 % (1 % Standard) |
| Temperature Coefficient | >10 Ω: ±20 PPM/°C<br>1 Ω to 10 Ω: ±50 PPM/°C<br><1 Ω: Other TCR values available. Contact Bourns. |
| Temperature Range | Characteristic U: -55 °C to +275 °C<br>Characteristic V: -55 °C to +350 °C |
| Maximum Working Voltage | √ (P * R) |
| Dielectric Strength | UT1 / UT1/2A / UT1/2 / UT1A: 500 VAC;<br>All Others: 1000 VAC |
| Construction | Centerless ground ceramic core<br>Matte tin over copper<br>Flame resistant / high temperature / trivalent / inorganic Silicone coating<br>All welded terminations |

## Environmental Performance

| Specification (MIL-STD 202) | ΔR | |
|---|---|---|
| | Characteristic U | Characteristic V |
| Dielectric | ±0.2 % + 0.05 Ω | ±0.2 % + 0.05 Ω |
| Load Life | ±1 % + 0.05 Ω | ±3 % + 0.05 Ω |
| Storage | ±0.2 % + 0.05 Ω | ±2 % + 0.05 Ω |
| Moisture Resistance | ±0.2 % + 0.05 Ω | ±2 % + 0.05 Ω |
| Thermal Shock | ±0.2 % + 0.05 Ω | ±2 % + 0.05 Ω |
| 5X Overload (5 s) | ±0.2 % + 0.05 Ω | ±2 % + 0.05 Ω |
| Shock | ±0.1 % + 0.05 Ω | ±0.2 % + 0.05 Ω |
| Vibration | ±0.1 % + 0.05 Ω | ±0.2 % + 0.05 Ω |

## Power Derating Curves




## Additional Information

Click these links for more information:

PRODUCT | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

## How To Order

**UT 5 - 25R F 1**

Model
- UT (standard)
- UTN (non-inductive)

Power Rating Code
(See Specifications and Dimensions table on page 2)

Resistance Code
For values ≤10K Ω,
"R" represents decimal point
(Example: 25R = 25 Ω)
For values >10K Ω,
"K" represents decimal point
(Example 1K5 = 1.5K Ω)

Tolerance

| | |
|---|---|
| X** = ±0.01 % | D = ±0.5 % |
| W** = ±0.02 % | F = ±1 % |
| V** = ±0.025 % | G = ±2 % |
| U** = ±0.05 % | H = ±3 % |
| B = ±0.1 % | J = ±5 % |
| T = ±0.2 % | K = ±10 % |
| C = ±0.25 % | |

Internal Use

(Specific TCR values available upon request.)

**Contact Bourns for tolerances <±0.01 %.

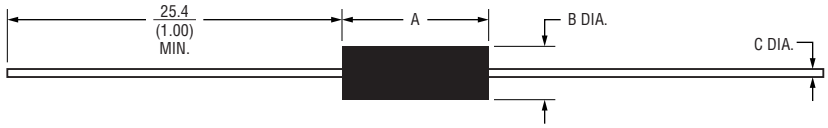
Note: Characteristic U is standard; Contact Bourns for Characteristic V.

**WARNING**
**Cancer and Reproductive Harm**
www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

# UT Series – Riedon™ High Temperature Power Resistors by Bourns

## Specifications and Dimensions




| Model & Power Rating Code | Power Rating (W) | | Max. Ohms[2] (Ω) | Dimensions | | | Designed to Mil-R-26 / MIL-R-39007 |
|---|---|---|---|---|---|---|---|
| | U | V | | A | B[3] | C[1] | |
| UT1 | 0.1 | 0.25 | 500 | 3.8 ± 1.6 (.150 ± .062) | 2.0 ± 0.8 (.078 ± .031) | 0.46 ± 0.05 (.018 ± .002) | — |
| UT1/2A | 0.4 | 0.5 | 2.5k | 6.4 ± 1.6 (.250 ± .062) | 2.4 ± 0.8 (.094 ± .031) | **0.5 ± 0.05 (.020 ± .002)** 0.6 ± 0.05 (.025 ± .002) | — |
| UT1/2 | 0.75 | 0.9 | 7.5k | 8.4 ± 1.6 (.330 ± .062) | 2.4 ± 0.8 (.094 ± .031) | | — |
| UT1A | 1.0 | 1.5 | 10k | 10.3 ± 1.6 (.406 ± .062) | 2.4 ± 0.8 (.094 ± .031) | | RW-70 |
| UT2 | 1.5 | 2.0 | 12.5k | 8.9 ± 1.6 (.350 ± .062) | 4.0 ± 0.8 (.156 ± .031) | 0.8 ± 0.05 (.032 ± .002) | — |
| UT2A | 2.5 | 3.0 | 22k | 12.7 ± 1.6 (.500 ± .062) | 4.7 ± 0.8 (.187 ± .031) | | RW-69 |
| UT2B | 3.0 | 3.75 | 22k | 14.2 ± 1.6 (.560 ± .062) | 4.7 ± 0.8 (.187 ± .031) | | RW-79 |
| UT2C | 3.0 | 4.0 | 40k | 12.7 ± 1.6 (.500 ± .062) | 6.4 ± 0.8 (.250 ± .031) | **1.0 ± 0.05 (.040 ± .002)** 0.8 ± 0.05 (.032 ± .002) | — |
| UT2E | 3.0 | 3.5 | 30k | 12.7 ± 1.6 (.500 ± .062) | 5.1 ± 0.8 (.200 ± .031) | 0.8 ± 0.05 (.032 ± .002) | — |
| UT3 | 4.0 | 5.5 | 45k | 17.1 ± 1.6 (.675 ± .062) | 6.9 ± 0.8 (.270 ± .031) | **1.0 ± 0.05 (.040 ± .002)** 0.8 ± 0.05 (.032 ± .002) | — |
| UT5 | 5.0 | 6.5 | 91k | 22.2 ± 1.6 (.875 ± .062) | 7.9 ± 0.8 (.312 ± .031) | 1.0 ± 0.05 (.040 ± .002) | RW-74 |
| UT5A | 5.0 | 6.5 | 65k | 24.6 ± 1.6 (.970 ± .062) | 5.2 ± 0.8 (.250 ± .031) | 0.8 ± 0.05 (.032 ± .002) | — |
| UT6 | 5.0 | 6.5 | 95k | 26.0 ± 1.6 (1.025 ± .062) | 7.9 ± 0.8 (.312 ± .031) | 1.0 ± 0.05 (.040 ± .002) | RW-67 |
| UT7A | 7.0 | 9.0 | 150k | 35.0 ± 1.6 (1.375 ± .062) | 9.5 ± 0.8 (.375 ± .031) | | — |
| UT7B | 7.0 | 9.0 | 100k | 35.6 ± 1.6 (1.400 ± .062) | 7.9 ± 0.8 (.312 ± .031) | 0.8 ± 0.05 (.032 ± .002) | — |
| UT7C | 7.0 | 9.0 | 154k | 31.0 ± 1.6 (1.220 ± .062) | 7.9 ± 0.8 (.312 ± .031) | 1.0 ± 0.05 (.040 ± .002) | — |
| UT10 | 10 | 13 | 260k | 45.2 ± 1.6 (1.780 ± .062) | 9.5 ± 0.8 (.375 ± .031) | | RW-78 |
| UT15 | 15 | — | 320k | 46.0 ± 1.6 (1.810 ± .062) | 13.0 ± 0.8 (.510 ± .031) | 1.5 ± 0.05 (.050 ± .002) | — |

Notes:
[1] Lead Diameter: 18 AWG = 0.040 ″ / 20 AWG = 0.032 ″ / 22 AWG = 0.025 ″ / 24 AWG = 0.020 ″ / 25 AWG = 0.018 ″.
Where more than one lead is listed / the **bold** value is standard.
[2] For non-inductive windings / divide maximum resistance by 2.
[3] For non-inductive winding where R ≤ 0.10 ohms, tolerance is +1.6/-0.0 mm (+0.063/-0.00 ″).

## Standard Package Quantities

| Model & Power Rating Code | Bulk | 10 ″ Reel | 12 ″ Reel | 14 ″ Reel |
|---|---|---|---|---|
| UT1 | 1000 | N/A | N/A | N/A |
| UT1/2A | | 2000 | 3000 | 5000 |
| UT1/2 | | | | |
| UT1A | | | | |
| UT2 | | | | |
| UT2A | | 500 | 1500 | 3000 |
| UT2B | | | | |
| UT2C | | | 1000 | 1500 |
| UT2E | | | | |
| UT3 | | N/A | 500 | 1000 |
| UT5 | | | | |
| UT5A | | 500 | 1000 | 1500 |
| UT6 | | N/A | 500 | 1000 |
| UT7A | | | | 750 |
| UT7B | | | | |
| UT7C | | | | |
| UT10 | | | | |

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