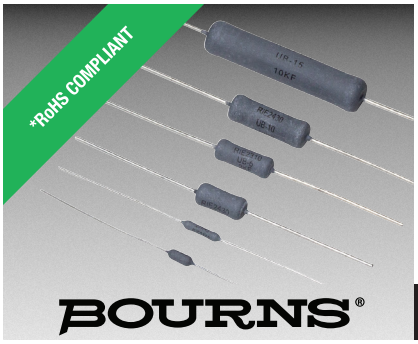


Features

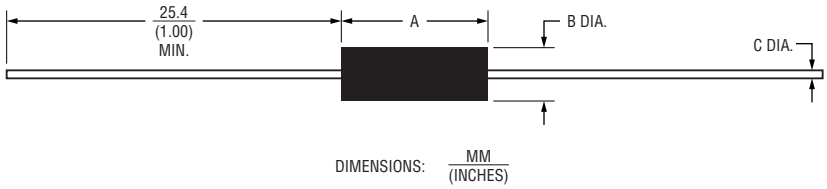
- Formerly a Riedon™ product
- Resistances from 0.02 to 260K Ω
- Resistance tolerances as low as ±0.01 %
- Power rating: 1 to 15 watts
- High power rating in a small package
- Excellent pulse handling
- Operating Temp. Range: -55 °C to +250 °C
- Low TCR: ±20 PPM/°C standard
- Designed to Mil-R-26 / MIL-R-39007 power ratings
- Non-inductive windings available
- Flame resistant coating
- RoHS compliant*

UB Series – Riedon™ Miniature Silicone Coated Power Resistors by Bourns

Specifications

Model and Power Rating Code	Power Rating (W)	Max. Ohms[2] (Ω)	Dimensions			Designed to Mil-R-26 / MIL-R-39007
			A	B[3]	C[1]	
UB1	1	3.4k	6.4 ± 1.6 (.250 ± .062)	2.2 ± 0.8 (.085 ± .031)	**0.5 ± 0.05 (.020 ± .002)**	RW-81 RWR-81
UB2	1.5	7.5k	7.9 ± 1.6 (.312 ± .062)	2.0 ± 0.8 (.078 ± .031)	0.6 ± 0.05 (.025 ± .002)	RWR-82
UB3	2	10k	10.3 ± 1.6 (.406 ± .062)	2.4 ± 0.8 (.094 ± .031)	**0.6 ± 0.05 (.025 ± .002)**	RW-80 RWR-80
UB3C	3	12.5k	8.9 ± 1.6 (.350 ± .062)	4.0 ± 0.8 (.156 ± .031)	0.8 ± 0.05 (.032 ± .002)	—
UB5	4	25k	14.2 ± 1.6 (.560 ± .062)	4.7 ± 0.8 (.187 ± .031)		—
UB5C	5	32k	12.7 ± 1.6 (.500 ± .062)	6.4 ± 0.8 (.250 ± .031)		—
UB6	6	50k	15.9 ± 1.6 (.625 ± .062)	6.4 ± 0.8 (.250 ± .031)		—
UB10	7	95k	22.2 ± 1.6 (.875 ± .062)	7.9 ± 0.8 (.312 ± .031)	1.0 ± 0.05 (.040 ± .002)	RW-84
UB12	10	150k	31.0 ± 1.6 (1.220 ± .062)	7.9 ± 0.8 (.312 ± .031)		—
UB15	15	260k	45.2 ± 1.6 (1.780 ± .062)	9.5 ± 0.8 (.375 ± .031)		—

Notes:
[1] Lead Diameter: 18 AWG = 0.040 ″ / 20 AWG = 0.032 ″ / 22 AWG = 0.025 ″ / 24 AWG = 0.020 ″.
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 ″).



Specification	Value
Tolerances	±0.01 % to ±10 % (1 % Standard)
Temperature Coefficient	>10 Ω: ±20 PPM/°C 1 Ω to 10 Ω: ±50 PPM/°C <1 Ω: Other TCR values available. Contact Bourns.
Temperature Range	-55 °C to +250 °C
Maximum Working Voltage	√ (P * R)
Dielectric Strength	UB1 / UB2 / UB3: 500 VAC; All Others: 1000 VAC
Construction	Centerless ground ceramic core Matte tin over copper Flame resistant / High temperature / trivalent / inorganic Silicone coating All welded terminations

Additional Information

Click these links for more information:

PRODUCT | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

How To Order

UB 5 - 25R F 1 - TR12

Model
UB (standard)
UBN (non-inductive)

Power Rating Code
(See Specifications table)

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

Packaging Options
(Blank) = Bulk Packaging
-TR12 = Tape and Reel (12-inch Reel)
-TR14 = Tape and Reel (14-inch Reel)

(Specific TCR values available upon request.)

**Contact Bourns for tolerances <±0.01 %.

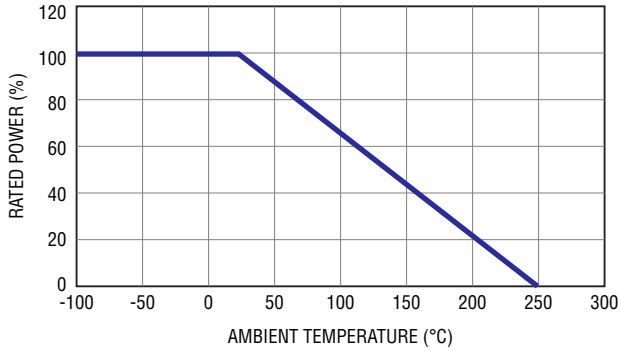
CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant. See www.P65Warnings.ca.gov

*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.

Environmental Performance

Specification (MIL-STD 202)	ΔR
Dielectric	±0.2 % + 0.05 Ω
Load Life	To ±1 % depending on size and resistance value
Storage	±0.2 % + 0.05 Ω
Moisture Resistance	±0.2 % + 0.05 Ω
Thermal Shock	±0.2 % + 0.05 Ω
5X Overload (5 s)	±0.2 % + 0.05 Ω
Shock	±0.1 % + 0.05 Ω
Vibration	±0.1 % + 0.05 Ω

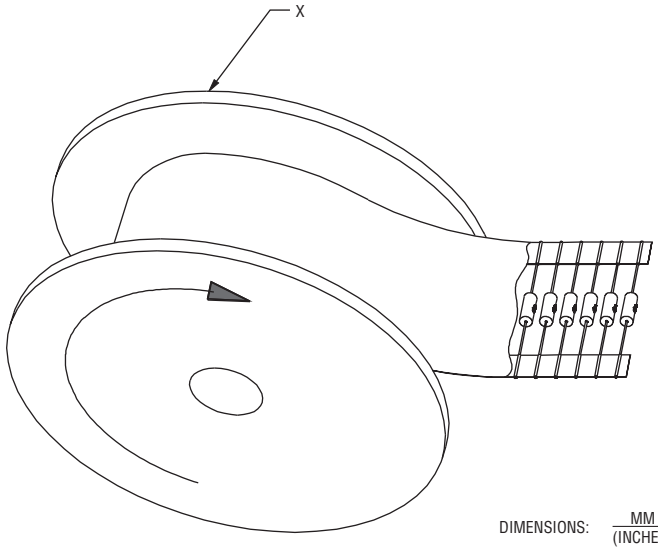
Power Derating Curve



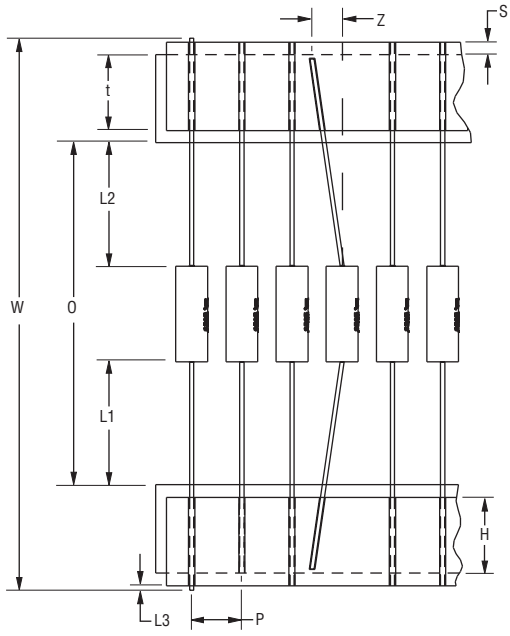
Packaging Quantities

Bourns Model Number	Max. Bulk	12 ˝ Reel	14 ˝ Reel
UB1 UB2 UB3 UB3C	500	3000	N/A
UB5		1500	N/A
UB5C		1000	N/A
UB6 UB10 UB12		N/A	1000
UB15	250	N/A	500

Packaging Specifications



DIMENSIONS: MM / (INCHES)



Model	Dimension O (mm)	Reel Size (Inches) Dimension X	Pitch (Inches) Dimension P	Clean Lead to Clean Lead Eccentricity (Max.) Dimension L1–L2	Lead Extension (Max.) - Zero is Preferred Dimension L3	Lead Bending Dimension Z	Exposed Adhesive (Max.) Dimension S	Tape Width (mm) Dimension t	Lead Sandwich (Min.) Dimension H	Overall Width (Max.) Dimension W
UB1	1.983-2.141	12	0.2	1.4 (.055)	0.8 (.031)	1.0 (.039)	0.8 (.031)	7 (177.8)	t/2	123.5 (4.862)
UB2										
UB3										
UB3C			0.4							
UB5	2.421-2.579									
UB5C										
UB6		14								
UB10										
UB12	3.206-3.364									

REV. 02/26

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