



Features

- Formerly a Riedon™ product
- Resistances from 0.02 to 260K Ω
- Resistance tolerances as low as $\pm 0.01\%$
- Power rating: 1 to 15 watts
- High power rating in a small package
- Excellent pulse handling
- Operating temp. range: $-55\text{ }^{\circ}\text{C}$ to $+250\text{ }^{\circ}\text{C}$

- Low TCR: $\pm 20\text{ PPM}/^{\circ}\text{C}$ 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	$\frac{6.4 \pm 1.6}{(.250 \pm .062)}$	$\frac{2.2 \pm 0.8}{(.085 \pm .031)}$	$\frac{0.5 \pm 0.05}{(.020 \pm .002)}$	RW-81 RWR-81
UB2	1.5	7.5k	$\frac{7.9 \pm 1.6}{(.312 \pm .062)}$	$\frac{2.0 \pm 0.8}{(.078 \pm .031)}$	$\frac{0.6 \pm 0.05}{(.025 \pm .002)}$	RWR-82
UB3	2	10k	$\frac{10.3 \pm 1.6}{(.406 \pm .062)}$	$\frac{2.4 \pm 0.8}{(.094 \pm .031)}$	$\frac{0.6 \pm 0.05}{(.025 \pm .002)}$	RW-80 RWR-80
UB3C	3	12.5k	$\frac{8.9 \pm 1.6}{(.350 \pm .062)}$	$\frac{4.0 \pm 0.8}{(.156 \pm .031)}$	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	—
UB5	4	25k	$\frac{14.2 \pm 1.6}{(.560 \pm .062)}$	$\frac{4.7 \pm 0.8}{(.187 \pm .031)}$	$\frac{1.0 \pm 0.05}{(.040 \pm .002)}$	—
UB5C	5	32k	$\frac{12.7 \pm 1.6}{(.500 \pm .062)}$	$\frac{6.4 \pm 0.8}{(.250 \pm .031)}$		—
UB6	6	50k	$\frac{15.9 \pm 1.6}{(.625 \pm .062)}$	$\frac{6.4 \pm 0.8}{(.250 \pm .031)}$		—
UB10	7	95k	$\frac{22.2 \pm 1.6}{(.875 \pm .062)}$	$\frac{7.9 \pm 0.8}{(.312 \pm .031)}$	$\frac{1.0 \pm 0.05}{(.040 \pm .002)}$	RW-84
UB12	10	150k	$\frac{31.0 \pm 1.6}{(1.220 \pm .062)}$	$\frac{7.9 \pm 0.8}{(.312 \pm .031)}$		—
UB15	15	260k	$\frac{45.2 \pm 1.6}{(1.780 \pm .062)}$	$\frac{9.5 \pm 0.8}{(.375 \pm .031)}$		—

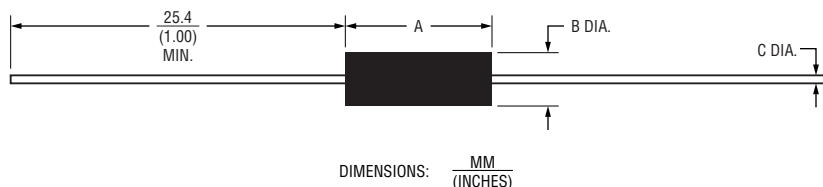
Notes:

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 $R \leq 0.10$ ohms, tolerance is $+1.6/-0.0$ mm ($+0.063/-0.00$ ").



Specification	Value
Tolerances	$\pm 0.01\%$ to $\pm 10\%$ (1% Standard)
Temperature Coefficient	$>10\text{ }^{\circ}\Omega$: $\pm 20\text{ PPM}/^{\circ}\text{C}$ $1\text{ }^{\circ}\Omega$ to $10\text{ }^{\circ}\Omega$: $\pm 50\text{ PPM}/^{\circ}\text{C}$ $<1\text{ }^{\circ}\Omega$: Other TCR values available. Contact Bourns.
Temperature Range	$-55\text{ }^{\circ}\text{C}$ to $+250\text{ }^{\circ}\text{C}$
Maximum Working Voltage	$\sqrt{P \cdot R}$
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:



How To Order

UB 5 - 25R F 1

Model _____
 UB (standard)
 UBN (non-inductive)
 Power Rating Code _____
 (See Specifications table)
 Resistance Code _____
 For values $\leq 10\text{K } \Omega$,
 "R" represents decimal point
 (Example: 25R = 25 Ω)
 For values $>10\text{K } \Omega$,
 "K" represents decimal point
 (Example 1K5 = 1.5K Ω)
 Tolerance _____
 X** = $\pm 0.01\%$ D = $\pm 0.5\%$
 W** = $\pm 0.02\%$ F = $\pm 1\%$
 V** = $\pm 0.025\%$ G = $\pm 2\%$
 U** = $\pm 0.05\%$ H = $\pm 3\%$
 B = $\pm 0.1\%$ J = $\pm 5\%$
 T = $\pm 0.2\%$ K = $\pm 10\%$
 C = $\pm 0.25\%$

Internal Use _____

(Specific TCR values available upon request.)

**[Contact Bourns](#) for tolerances $<\pm 0.01\%$.



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

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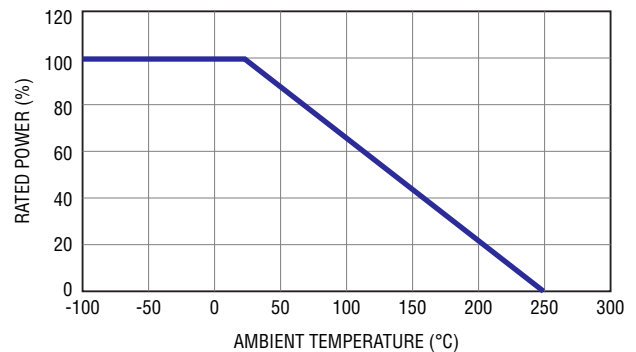
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BOURNS®

Environmental Performance

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

Power Derating Curve



Packaging Quantities

Bourns Model Number	Max. Bulk	10" Reel	12" Reel	14" Reel
UB1	1000	2000	3000	5000
UB2				
UB3				
UB3C				
UB5		500	1500	3000
UB5C			1000	1500
UB6		N/A	500	1000
UB10				
UB12				
UB15			N/A	750

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REV. 10/24

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