

UB Series

Silicone Coated Power Resistors



- Resistances from 0.005 to 260kOhms
- Power Rating 1 to 18Watts
- Resistance Tolerances to $\pm 0.01\%$
- Low TCR: $\pm 20\text{ppm/K}$ Standard
- MIL-R-26 / MIL-R-39007 Power Ratings
- Temperature Range: -55°C to $+350^{\circ}\text{C}$ ("V" Rating)
- Non-Inductive Windings Available

SPECIFICATIONS

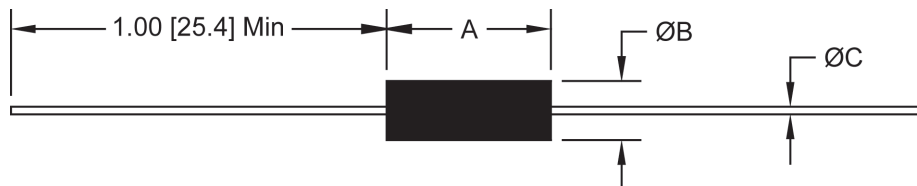
| Type | Wattage Rating (Watts) | | Maximum Ohms ² | Dimensions | | | Maximum Working Voltage | MIL-R-26 / MIL-R-39007 Style |
|-------------------|--------------------------|-----|---------------------------|---|---|---|-------------------------|------------------------------|
| | U | V | | A $\pm 0.062"$ [$\pm 1.6\text{mm}$] | B $\pm 0.031"$ [$\pm 0.8\text{mm}$] | C ¹ $\pm 0.002"$ [$\pm 0.05\text{mm}$] | | |
| UB-1 | 1 | 1.5 | 3.4k | 0.250 [6.4] | 0.085 [2.2] | 0.020 [0.5] 0.025 [0.6] | 33 | RW-81 RWR-81 |
| UB-2 ³ | 1.5 | 2 | 7.5k | 0.312 [7.9] | 0.078 [2.0] | 0.020 [0.5] 0.025 [0.6] | 42 | RWR-82 |
| UB-3 | 2 | 3 | 10k | 0.406 [10.3] | 0.094 [2.4] | 0.025 [0.6] 0.020 [0.5] | 80 | RW-80 RWR-80 |
| UB-5 | 4 | 5 | 25k | 0.560 [14.2] | 0.187 [4.7] | 0.032 [0.8] | 162 | |
| UB-5C | 5 | 7 | 32k | 0.500 [12.7] | 0.218 [5.5] | 0.032 [0.8] | 194 | |
| UB-6 | 6 | 8 | 50k | 0.625 [15.9] | 0.250 [6.4] | 0.040 [1.0] | 258 | |
| UB-10 | 7 | 10 | 95k | 0.875 [22.2] | 0.312 [7.9] | 0.040 [1.0] | 425 | RW-84 |
| UB-12 | 10 | 12 | 150k | 1.220 [31.0] | 0.312 [7.9] | 0.040 [1.0] | 607 | |
| UB-15 | 15 | 18 | 260k | 1.780 [45.2] | 0.375 [9.5] | 0.040 [1.0] | 1050 | |

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 top value is Standard

² For non-inductive windings / divide maximum resistance by 2

³ This part does not meet the RoHS directive - call factory for details



Ordering Information

For Non-Inductive Windings / insert the letter "N" (i.e. UBN-5)

Part Number - Resistance - Tolerance - TCR (If not standard)

Example: UB-3 10 Ohm 1%

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SPECIFICATIONS (continued)

| Specification | Value | | | | | | | | | | | | | | | | | |
|---|---|------------------|------------------|---------------|---------------|---|--|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|---------------|---------------|
| Tolerances | ±0.01% to ±10% (1% Standard) | | | | | | | | | | | | | | | | | |
| Temperature Coefficient | >10Ω : ±20ppm/K 1Ω to10Ω : ±50ppm/K <1Ω : Call Factory | | | | | | | | | | | | | | | | | |
| Temperature Range | -55°C to +250°C : Characteristic U -55°C to +350°C : Characteristic V | | | | | | | | | | | | | | | | | |
| Dielectric Strength | 500 VAC : UB-1 / UB-2 / UB-3 1000 VAC : All Others | | | | | | | | | | | | | | | | | |
| Constuction | Centerless ground ceramic core Tinned copper or copperweld leads High temperature / trivalent / inorganic Silicone coating All welded terminations | | | | | | | | | | | | | | | | | |
| Environmental Performance (MIL-STD 202) | ΔR | | | | | | | | | | | | | | | | | |
| | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Characteristic U</th> <th style="width: 50%;">Characteristic V</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">±0.2% + 0.05Ω</td> <td style="text-align: center;">±0.2% + 0.05Ω</td> </tr> <tr> <td colspan="2" style="text-align: center;">to ±1% depending on size and Resistance Value</td> </tr> <tr> <td style="text-align: center;">±0.2% + 0.05Ω</td> <td style="text-align: center;">±2% + 0.05Ω</td> </tr> <tr> <td style="text-align: center;">±0.2% + 0.05Ω</td> <td style="text-align: center;">±2% + 0.05Ω</td> </tr> <tr> <td style="text-align: center;">±0.2% + 0.05Ω</td> <td style="text-align: center;">±2% + 0.05Ω</td> </tr> <tr> <td style="text-align: center;">±0.2% + 0.05Ω</td> <td style="text-align: center;">±2% + 0.05Ω</td> </tr> <tr> <td style="text-align: center;">±0.1% + 0.05Ω</td> <td style="text-align: center;">±0.2% + 0.05Ω</td> </tr> <tr> <td style="text-align: center;">±0.1% + 0.05Ω</td> <td style="text-align: center;">±0.2% + 0.05Ω</td> </tr> </tbody> </table> | Characteristic U | Characteristic V | ±0.2% + 0.05Ω | ±0.2% + 0.05Ω | to ±1% depending on size and Resistance Value | | ±0.2% + 0.05Ω | ±2% + 0.05Ω | ±0.2% + 0.05Ω | ±2% + 0.05Ω | ±0.2% + 0.05Ω | ±2% + 0.05Ω | ±0.2% + 0.05Ω | ±2% + 0.05Ω | ±0.1% + 0.05Ω | ±0.2% + 0.05Ω | ±0.1% + 0.05Ω |
| Characteristic U | Characteristic V | | | | | | | | | | | | | | | | | |
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| ±0.1% + 0.05Ω | ±0.2% + 0.05Ω | | | | | | | | | | | | | | | | | |
| Dielectric | ±0.2% + 0.05Ω | | | | | | | | | | | | | | | | | |
| Load Life | to ±1% depending on size and Resistance Value | | | | | | | | | | | | | | | | | |
| Storage | ±0.2% + 0.05Ω | | | | | | | | | | | | | | | | | |
| Moisture Resistance | ±0.2% + 0.05Ω | | | | | | | | | | | | | | | | | |
| Thermal Shock | ±0.2% + 0.05Ω | | | | | | | | | | | | | | | | | |
| 5X Overload (5s) | ±0.2% + 0.05Ω | | | | | | | | | | | | | | | | | |
| Shock | ±0.1% + 0.05Ω | | | | | | | | | | | | | | | | | |
| Vibration | ±0.1% + 0.05Ω | | | | | | | | | | | | | | | | | |

