

Ohmite's Brown Devil® is a small, exceptionally durable power resistor. It features all-welded construction and rugged, flame resistant conformal lead free vitreous enamel coating to ensure successful performance under high temperatures.

The wirewound 200 Series has a hollow-core construction, which accommodates rigid mounting with brackets or thru bolts.

Mounting brackets not included with resistors.

FEATURES

- Rugged lead free vitreous enamel coating
- All-welded construction.
- Self supporting terminal mounting option.
- Higher power ratings.
- Flame-resistant lead free vitreous enamel coating.
- RoHS compliant product available. Add "E" suffix to part number to specify.

See page 36 for mounting hardware

SPECIFICATIONS

Material

Coating: lead free vitreous enamel.

Core: Ceramic.

Terminals: Tinned axial; RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu

Derating: Linearly from 100% @ +25°C to 0% @ +350°C.

Electrical

Tolerance: 1Ω+: ±5%
under 1Ω: ±10%

Power rating: Based on 25°C free air rating.

Overload: 10 times rated wattage for 5 seconds.

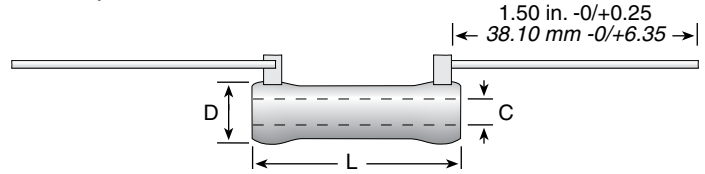
Temperature coefficient: 5Ω and under: ±400 ppm/°C
Above 5Ω: ±260 ppm/°C

To calculate max. amps: use the formula $\sqrt{P/R}$.



200 Series

Brown Devil® Vitreous Enamel Power



| Series | Wattage | Ohms | Dimensions (in. / mm) | | | Lead Gauge | Max. Volt. * |
|--------|---------|----------|-----------------------|---------------|--------------|------------|--------------|
| | | | L | D | C | | |
| B5 | 5.25 | 0.1-20K | 0.625 / 15.88 | 0.250 / 6.35 | 0.135 / 3.43 | 20 | 187 |
| B8 | 8.0 | 0.03-25K | 1.000 / 25.40 | 0.313 / 7.94 | 0.188 / 4.76 | 18 | 250 |
| B12 | 12.0 | 0.08-51K | 1.750 / 44.45 | 0.313 / 7.94 | 0.188 / 4.76 | 18 | 625 |
| B20 | 20.0 | 0.1-100K | 2.000 / 50.80 | 0.438 / 11.11 | 0.250 / 6.35 | 18 | 750 |

Non-Inductive versions available. Insert "N" before tolerance code. **Example** - B5N10RE
Also available in low cost Centohm or Silicone coating. Consult Ohmite.
* Maximum Voltage is based on Ohm's Law $[V=\sqrt{P \cdot R}]$ as limited by the resistance value of specified product

ORDERING INFO

| | | | |
|--|-----------|--|----------------|
| Coating Blank = Vitreous C = Centohm S = Silicone | Wattage | Non-Inductive Winding Optional (blank = std. winding) | RoHS Compliant |
| B 8 N J 5 R 0 E | | | |
| Series | Tolerance | Ohms | RoHS Compliant |
| | F = 1% | 1R0 = 1 Ω | |
| | H = 3% | 250 = 250 Ω | |
| | J = 5% | 1K0 = 1,000 Ω | |
| | K = 10% | 25K = 25,000 Ω | |
| | | 25K5 = 25,500 Ω | |

MADE-TO-ORDER PARTS

| | | |
|--|--|-----------------|
| Non-Inductive Winding Optional (blank = std. winding) | Core Diameter See "Core and Terminal Selection" | RoHS Compliant |
| 2 0 0 N 8 D 5 R 0 0 J E | | |
| Coating 200 = Vitreous 400 = Silicone Ceramic | Wattage | Ohms |
| | 3 | R500 = 0.500 Ω |
| | 5.25 | 1R00 = 1 Ω |
| | 8 | 250R = 250 Ω |
| | 12 | 1K00 = 1,000 Ω |
| | 20 | 25K0 = 25,000 Ω |
| | | 25K5 = 25,500 Ω |
| Tolerance | F = 1% | H = 3% |
| | J = 5% | K = 10% |

See web-site for custom core info

STANDARD PART NUMBERS FOR 200 SERIES

| Ohmic value | Part No. | Wattage | Ohmic value | Part No. | Wattage | Ohmic value | Part No. | Wattage | Ohmic value | Part No. | Wattage | Ohmic value | Part No. | Wattage | | | |
|-------------|----------|---------|-------------|----------|---------|-------------|----------|---------|-------------|----------|---------|-------------|----------|---------|---|----|----|
| Prefix | Suffix | 5.25 | 8 | 12 | 20 | Prefix | Suffix | 5.25 | 8 | 12 | 20 | Prefix | Suffix | 5.25 | 8 | 12 | 20 |
| 0.5 | R50E | ✓ | ✓ | ✓ | ✓ | 20 | 20RE | ✓ | ✓ | ✓ | ✓ | 270 | 270E | ✓ | ✓ | ✓ | ✓ |
| 1 | 1R0E | ✓ | ✓ | ✓ | ✓ | 22 | 22RE | ✓ | ✓ | ✓ | ✓ | 300 | 300E | ✓ | ✓ | ✓ | ✓ |
| 1.1 | 1R1E | ✓ | ✓ | ✓ | ✓ | 24 | 24RE | ✓ | ✓ | ✓ | ✓ | 330 | 330E | ✓ | ✓ | ✓ | ✓ |
| 1.2 | 1R2E | ✓ | ✓ | ✓ | ✓ | 25 | 25RE | ✓ | ✓ | ✓ | ✓ | 350 | 350E | ✓ | ✓ | ✓ | ✓ |
| 1.3 | 1R3E | ✓ | ✓ | ✓ | ✓ | 27 | 27RE | ✓ | ✓ | ✓ | ✓ | 360 | 360E | ✓ | ✓ | ✓ | ✓ |
| 1.5 | 1R5E | ✓ | ✓ | ✓ | ✓ | 30 | 30RE | ✓ | ✓ | ✓ | ✓ | 390 | 390E | ✓ | ✓ | ✓ | ✓ |
| 1.6 | 1R6E | ✓ | ✓ | ✓ | ✓ | 33 | 33RE | ✓ | ✓ | ✓ | ✓ | 400 | 400E | ✓ | ✓ | ✓ | ✓ |
| 1.8 | 1R8E | ✓ | ✓ | ✓ | ✓ | 35 | 35RE | ✓ | ✓ | ✓ | ✓ | 430 | 430E | ✓ | ✓ | ✓ | ✓ |
| 2 | 2R0E | ✓ | ✓ | ✓ | ✓ | 36 | 36RE | ✓ | ✓ | ✓ | ✓ | 450 | 450E | ✓ | ✓ | ✓ | ✓ |
| 2.2 | 2R2E | ✓ | ✓ | ✓ | ✓ | 39 | 39RE | ✓ | ✓ | ✓ | ✓ | 470 | 470E | ✓ | ✓ | ✓ | ✓ |
| 2.4 | 2R4E | ✓ | ✓ | ✓ | ✓ | 40 | 40RE | ✓ | ✓ | ✓ | ✓ | 500 | 500E | ✓ | ✓ | ✓ | ✓ |
| 2.7 | 2R7E | ✓ | ✓ | ✓ | ✓ | 43 | 43RE | ✓ | ✓ | ✓ | ✓ | 510 | 510E | ✓ | ✓ | ✓ | ✓ |
| 3 | 3R0E | ✓ | ✓ | ✓ | ✓ | 47 | 47RE | ✓ | ✓ | ✓ | ✓ | 560 | 560E | ✓ | ✓ | ✓ | ✓ |
| 3.3 | 3R3E | ✓ | ✓ | ✓ | ✓ | 50 | 50RE | ✓ | ✓ | ✓ | ✓ | 600 | 600E | ✓ | ✓ | ✓ | ✓ |
| 3.6 | 3R6E | ✓ | ✓ | ✓ | ✓ | 51 | 51RE | ✓ | ✓ | ✓ | ✓ | 620 | 620E | ✓ | ✓ | ✓ | ✓ |
| 3.9 | 3R9E | ✓ | ✓ | ✓ | ✓ | 56 | 56RE | ✓ | ✓ | ✓ | ✓ | 650 | 650E | ✓ | ✓ | ✓ | ✓ |
| 4 | 4R0E | ✓ | ✓ | ✓ | ✓ | 62 | 62RE | ✓ | ✓ | ✓ | ✓ | 680 | 680E | ✓ | ✓ | ✓ | ✓ |
| 4.3 | 4R3E | ✓ | ✓ | ✓ | ✓ | 68 | 68RE | ✓ | ✓ | ✓ | ✓ | 700 | 700E | ✓ | ✓ | ✓ | ✓ |
| 4.7 | 4R7E | ✓ | ✓ | ✓ | ✓ | 75 | 75RE | ✓ | ✓ | ✓ | ✓ | 750 | 750E | ✓ | ✓ | ✓ | ✓ |
| 5 | 5R0E | ✓ | ✓ | ✓ | ✓ | 82 | 82RE | ✓ | ✓ | ✓ | ✓ | 800 | 800E | ✓ | ✓ | ✓ | ✓ |
| 5.1 | 5R1E | ✓ | ✓ | ✓ | ✓ | 91 | 91RE | ✓ | ✓ | ✓ | ✓ | 820 | 820E | ✓ | ✓ | ✓ | ✓ |
| 5.6 | 5R6E | ✓ | ✓ | ✓ | ✓ | 100 | 100E | ✓ | ✓ | ✓ | ✓ | 900 | 900E | ✓ | ✓ | ✓ | ✓ |
| 6.2 | 6R2E | ✓ | ✓ | ✓ | ✓ | 110 | 110E | ✓ | ✓ | ✓ | ✓ | 910 | 910E | ✓ | ✓ | ✓ | ✓ |
| 6.8 | 6R8E | ✓ | ✓ | ✓ | ✓ | 120 | 120E | ✓ | ✓ | ✓ | ✓ | 1,000 | 1K0E | ✓ | ✓ | ✓ | ✓ |
| 7.5 | 7R5E | ✓ | ✓ | ✓ | ✓ | 125 | 125E | ✓ | ✓ | ✓ | ✓ | 1,100 | 1K1E | ✓ | ✓ | ✓ | ✓ |
| 8.2 | 8R2E | ✓ | ✓ | ✓ | ✓ | 130 | 130E | ✓ | ✓ | ✓ | ✓ | 1,200 | 1K2E | ✓ | ✓ | ✓ | ✓ |
| 9.1 | 9R1E | ✓ | ✓ | ✓ | ✓ | 150 | 150E | ✓ | ✓ | ✓ | ✓ | 1,250 | 1K25E | ✓ | ✓ | ✓ | ✓ |
| 10 | 10RE | ✓ | ✓ | ✓ | ✓ | 160 | 160E | ✓ | ✓ | ✓ | ✓ | 1,300 | 1K3E | ✓ | ✓ | ✓ | ✓ |
| 11 | 11RE | ✓ | ✓ | ✓ | ✓ | 180 | 180E | ✓ | ✓ | ✓ | ✓ | 1,500 | 1K5E | ✓ | ✓ | ✓ | ✓ |
| 12 | 12RE | ✓ | ✓ | ✓ | ✓ | 200 | 200E | ✓ | ✓ | ✓ | ✓ | 1,600 | 1K6E | ✓ | ✓ | ✓ | ✓ |
| 13 | 13RE | ✓ | ✓ | ✓ | ✓ | 220 | 220E | ✓ | ✓ | ✓ | ✓ | 1,750 | 1K75E | ✓ | ✓ | ✓ | ✓ |
| 15 | 15RE | ✓ | ✓ | ✓ | ✓ | 225 | 225E | ✓ | ✓ | ✓ | ✓ | 1,800 | 1K8E | ✓ | ✓ | ✓ | ✓ |
| 16 | 16RE | ✓ | ✓ | ✓ | ✓ | 240 | 240E | ✓ | ✓ | ✓ | ✓ | 2,000 | 2K0E | ✓ | ✓ | ✓ | ✓ |
| 18 | 18RE | ✓ | ✓ | ✓ | ✓ | 250 | 250E | ✓ | ✓ | ✓ | ✓ | 2,200 | 2K2E | ✓ | ✓ | ✓ | ✓ |

✓ = Standard values; check availability using the worldwide inventory search at www.ohmite.com

These values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling:

B5: 6.8K-20KΩ
B8: 12.5K-25KΩ
B12: 30K-51KΩ
B20: 22.5K-100KΩ