

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.

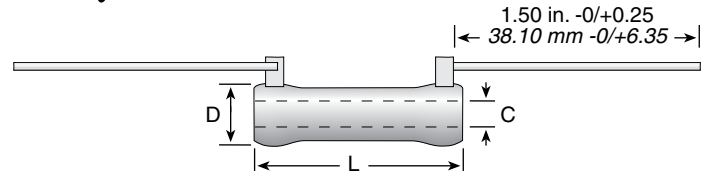
**Temperature coefficient:** 5Ω and under: ±400 ppm/°C  
Above 5Ω: ±260 ppm/°C

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



# 200 Series

## Brown Devil® Vitreous Enamel Power



|        |         |          | Dimensions (in. / mm) |               |              | Lead Gauge | Max. Volt. * |
|--------|---------|----------|-----------------------|---------------|--------------|------------|--------------|
| Series | Wattage | Ohms     | 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** - B5NJ10RE  
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                                         | Non-Inductive Winding           | RoHS Compliant                                                                 |
|-------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------|
| Blank = Vitreous<br>C = Centohm<br>S = Silicone | Optional (blank = std. winding) |                                                                                |
| <b>B 8 N J 5 R 0 E</b>                          |                                 |                                                                                |
| Series                                          | Wattage                         | Ohms                                                                           |
|                                                 |                                 | Tolerance                                                                      |
|                                                 |                                 | F = 1%<br>H = 3%<br>J = 5%<br>K = 10%                                          |
|                                                 |                                 | 1R0 = 1 Ω<br>250 = 250 Ω<br>1K0 = 1,000 Ω<br>25K = 25,000 Ω<br>25K5 = 25,500 Ω |

## MADE-TO-ORDER PARTS

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

See web-site for custom core info

## STANDARD PART NUMBERS FOR 200 SERIES

| Wattage     |          |      |   |    | Wattage |             |          |      |   | Wattage |    |             |          |      | Wattage |    |    |             |          | Wattage |   |    |    |             |                                                                                                                                                                                                                                                                                                                                                           |       |   |    |    |        |
|-------------|----------|------|---|----|---------|-------------|----------|------|---|---------|----|-------------|----------|------|---------|----|----|-------------|----------|---------|---|----|----|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---|----|----|--------|
| Ohmic value | Part No. | 5.25 | 8 | 12 | 20      | Ohmic value | Part No. | 5.25 | 8 | 12      | 20 | Ohmic value | Part No. | 5.25 | 8       | 12 | 20 | Ohmic value | Part No. | 5.25    | 8 | 12 | 20 | Ohmic value | Part No.                                                                                                                                                                                                                                                                                                                                                  | 5.25  | 8 | 12 | 20 |        |
|             | Prefix   |      |   |    |         |             | Suffix   |      |   |         |    |             | Prefix   |      |         |    |    |             | Suffix   |         |   |    |    |             | Prefix                                                                                                                                                                                                                                                                                                                                                    |       |   |    |    | Suffix |
| 0.5         | R50E     |      |   |    |         | 20          | 20RE     | ✓    | ✓ | ✓       |    | 270         | 270E     | ✓    |         |    |    |             | 2,250    | 2K25E   | ✓ | ✓  |    | 16,000      | 16KE                                                                                                                                                                                                                                                                                                                                                      |       |   | ✓  |    |        |
| 1           | 1R0E     | ✓    | ✓ | ✓  | ✓       | 22          | 22RE     | ✓    |   |         |    | 300         | 300E     |      | ✓       | ✓  | ✓  |             | 2,400    | 2K4E    |   |    |    | 17,500      | 17K5E                                                                                                                                                                                                                                                                                                                                                     | ✓     | ✓ |    |    |        |
| 1.1         | 1R1E     |      |   |    |         | 24          | 24RE     |      |   |         |    | 330         | 330E     | ✓    |         |    |    |             | 2,500    | 2K5E    |   |    |    | 18,000      | 18KE                                                                                                                                                                                                                                                                                                                                                      |       |   |    |    |        |
| 1.2         | 1R2E     |      |   |    |         | 25          | 25RE     |      | ✓ | ✓       | ✓  | 350         | 350E     |      | ✓       | ✓  | ✓  |             | 2,700    | 2K7E    | ✓ |    |    | 20,000      | 20KE                                                                                                                                                                                                                                                                                                                                                      | ✓     | ✓ | ✓  | ✓  |        |
| 1.3         | 1R3E     |      |   |    |         | 27          | 27RE     | ✓    |   |         |    | 360         | 360E     |      |         |    |    |             | 2,750    | 2K75E   |   |    | ✓  | 22,500      | 22K5E                                                                                                                                                                                                                                                                                                                                                     |       | ✓ | ✓  |    |        |
| 1.5         | 1R5E     | ✓    | ✓ | ✓  |         | 30          | 30RE     | ✓    | ✓ | ✓       |    | 390         | 390E     | ✓    |         |    |    |             | 3,000    | 3K0E    | ✓ | ✓  | ✓  | 25,000      | 25KE                                                                                                                                                                                                                                                                                                                                                      | ✓     |   | ✓  | ✓  |        |
| 1.6         | 1R6E     | ✓    |   |    |         | 33          | 33RE     |      |   |         |    | 400         | 400E     |      | ✓       | ✓  | ✓  |             | 3,300    | 3K3E    | ✓ |    |    | 30,000      | 30KE                                                                                                                                                                                                                                                                                                                                                      |       | ✓ | ✓  | ✓  |        |
| 1.8         | 1R8E     |      |   |    |         | 35          | 35RE     |      | ✓ | ✓       |    | 430         | 430E     |      |         |    |    |             | 3,500    | 3K5E    |   | ✓  | ✓  | 35,000      | 35KE                                                                                                                                                                                                                                                                                                                                                      |       |   | ✓  | ✓  |        |
| 2           | 2R0E     | ✓    | ✓ | ✓  | ✓       | 36          | 36RE     |      |   |         |    | 450         | 450E     |      | ✓       | ✓  |    |             | 3,600    | 3K6E    |   |    |    | 40,000      | 40KE                                                                                                                                                                                                                                                                                                                                                      |       | ✓ | ✓  | ✓  |        |
| 2.2         | 2R2E     |      |   |    |         | 39          | 39RE     | ✓    |   |         |    | 470         | 470E     | ✓    |         |    |    |             | 3,900    | 3K9E    | ✓ |    |    | 45,000      | 45KE                                                                                                                                                                                                                                                                                                                                                      |       | ✓ |    |    |        |
| 2.4         | 2R4E     | ✓    |   |    |         | 40          | 40RE     |      | ✓ | ✓       | ✓  | 500         | 500E     |      | ✓       | ✓  | ✓  |             | 4,000    | 4K0E    |   | ✓  | ✓  | 50,000      | 50KE                                                                                                                                                                                                                                                                                                                                                      |       | ✓ | ✓  |    |        |
| 2.7         | 2R7E     | ✓    |   |    |         | 43          | 43RE     | ✓    |   |         |    | 510         | 510E     | ✓    |         |    |    |             | 4,300    | 4K3E    |   |    |    | 55,000      | 55KE                                                                                                                                                                                                                                                                                                                                                      |       |   |    |    |        |
| 3           | 3R0E     |      | ✓ | ✓  | ✓       | 47          | 47RE     | ✓    |   |         |    | 560         | 560E     | ✓    |         |    |    |             | 4,500    | 4K5E    | ✓ | ✓  | ✓  | 60,000      | 60KE                                                                                                                                                                                                                                                                                                                                                      |       |   |    |    |        |
| 3.3         | 3R3E     | ✓    |   |    |         | 50          | 50RE     |      | ✓ | ✓       | ✓  | 600         | 600E     |      | ✓       | ✓  |    |             | 4,700    | 4K7E    | ✓ |    |    | 65,000      | 65KE                                                                                                                                                                                                                                                                                                                                                      |       |   |    |    |        |
| 3.6         | 3R6E     | ✓    |   |    |         | 51          | 51RE     | ✓    |   |         |    | 620         | 620E     | ✓    |         |    |    |             | 5,000    | 5K0E    |   | ✓  | ✓  | ✓           | 70,000                                                                                                                                                                                                                                                                                                                                                    | 70KE  |   |    |    |        |
| 3.9         | 3R9E     | ✓    |   |    |         | 56          | 56RE     | ✓    |   |         |    | 650         | 650E     |      |         |    | ✓  |             | 5,100    | 5K1E    | ✓ |    |    | 75,000      | 75KE                                                                                                                                                                                                                                                                                                                                                      |       |   |    |    |        |
| 4           | 4R0E     |      | ✓ | ✓  | ✓       | 62          | 62RE     | ✓    |   |         |    | 680         | 680E     | ✓    |         |    |    |             | 5,600    | 5K6E    | ✓ |    |    | 80,000      | 80KE                                                                                                                                                                                                                                                                                                                                                      |       |   |    | ✓  |        |
| 4.3         | 4R3E     |      |   |    |         | 68          | 68RE     | ✓    |   |         |    | 700         | 700E     |      | ✓       | ✓  | ✓  |             | 6,000    | 6K0E    |   | ✓  | ✓  | 85,000      | 85KE                                                                                                                                                                                                                                                                                                                                                      |       |   |    |    |        |
| 4.7         | 4R7E     | ✓    |   |    |         | 75          | 75RE     | ✓    | ✓ | ✓       | ✓  | 750         | 750E     |      | ✓       | ✓  | ✓  |             | 6,200    | 6K2E    | ✓ |    |    | 90,000      | 90KE                                                                                                                                                                                                                                                                                                                                                      |       |   |    |    |        |
| 5           | 5R0E     |      | ✓ | ✓  | ✓       | 82          | 82RE     | ✓    |   |         |    | 800         | 800E     |      | ✓       | ✓  | ✓  |             | 6,800    | 6K8E    | ✓ |    |    | 95,000      | 95KE                                                                                                                                                                                                                                                                                                                                                      |       |   |    |    |        |
| 5.1         | 5R1E     | ✓    |   |    |         | 91          | 91RE     | ✓    |   |         |    | 820         | 820E     | ✓    |         |    |    |             | 7,000    | 7K0E    |   | ✓  | ✓  | ✓           | 100,000                                                                                                                                                                                                                                                                                                                                                   | 100KE |   |    |    |        |
| 5.6         | 5R6E     | ✓    |   |    |         | 100         | 100E     |      | ✓ | ✓       | ✓  | 900         | 900E     |      | ✓       | ✓  |    |             | 7,500    | 7K5E    | ✓ | ✓  | ✓  | ✓           | ✓ = Standard values; check availability using the world-wide inventory search at <a href="http://www.ohmite.com">www.ohmite.com</a><br><br>These values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling:<br>B5: 6.8K-20KΩ<br>B8: 12.5K-25KΩ<br>B12: 30K-51KΩ<br>B20: 22.5K-100KΩ |       |   |    |    |        |
| 6.2         | 6R2E     | ✓    |   |    |         | 110         | 110E     |      |   |         |    | 910         | 910E     |      |         |    |    |             | 8,000    | 8K0E    |   | ✓  | ✓  | ✓           |                                                                                                                                                                                                                                                                                                                                                           |       |   |    |    |        |
| 6.8         | 6R8E     | ✓    |   |    |         | 120         | 120E     | ✓    |   |         |    | 1,000       | 1K0E     | ✓    | ✓       | ✓  | ✓  |             | 8,200    | 8K2E    | ✓ |    |    |             |                                                                                                                                                                                                                                                                                                                                                           |       |   |    |    |        |
| 7.5         | 7R5E     | ✓    | ✓ | ✓  |         | 125         | 125E     |      | ✓ | ✓       | ✓  | 1,100       | 1K1E     | ✓    | ✓       |    |    |             | 8,500    | 8K5E    |   |    |    |             |                                                                                                                                                                                                                                                                                                                                                           |       |   |    |    |        |
| 8.2         | 8R2E     | ✓    |   |    |         | 130         | 130E     |      |   | ✓       |    | 1,200       | 1K2E     | ✓    |         | ✓  | ✓  |             | 9,000    | 9K0E    |   | ✓  |    | ✓           |                                                                                                                                                                                                                                                                                                                                                           |       |   |    |    |        |
| 9.1         | 9R1E     | ✓    |   |    |         | 150         | 150E     | ✓    | ✓ |         | ✓  | 1,250       | 1K25E    | ✓    | ✓       | ✓  | ✓  |             | 9,100    | 9K1E    |   |    |    |             |                                                                                                                                                                                                                                                                                                                                                           |       |   |    |    |        |
| 10          | 10RE     |      | ✓ | ✓  | ✓       | 160         | 160E     | ✓    |   |         |    | 1,300       | 1K3E     |      | ✓       |    |    |             | 10,000   | 10KE    |   | ✓  | ✓  | ✓           |                                                                                                                                                                                                                                                                                                                                                           |       |   |    |    |        |
| 11          | 11RE     |      |   |    |         | 180         | 180E     |      |   |         |    | 1,500       | 1K5E     |      | ✓       | ✓  | ✓  |             | 11,000   | 11KE    |   |    | ✓  |             |                                                                                                                                                                                                                                                                                                                                                           |       |   |    |    |        |
| 12          | 12RE     | ✓    | ✓ | ✓  | ✓       | 200         | 200E     | ✓    | ✓ | ✓       | ✓  | 1,600       | 1K6E     |      |         |    |    |             | 12,000   | 12KE    | ✓ |    | ✓  |             |                                                                                                                                                                                                                                                                                                                                                           |       |   |    |    |        |
| 13          | 13RE     |      |   |    |         | 220         | 220E     | ✓    |   |         |    | 1,750       | 1K75E    |      | ✓       | ✓  | ✓  |             | 12,500   | 12K5E   |   | ✓  | ✓  | ✓           |                                                                                                                                                                                                                                                                                                                                                           |       |   |    |    |        |
| 15          | 15RE     | ✓    | ✓ | ✓  |         | 225         | 225E     |      |   | ✓       |    | 1,800       | 1K8E     |      |         |    |    |             | 13,000   | 13KE    | ✓ |    |    |             |                                                                                                                                                                                                                                                                                                                                                           |       |   |    |    |        |
| 16          | 16RE     |      |   |    |         | 240         | 240E     | ✓    |   |         |    | 2,000       | 2K0E     |      | ✓       | ✓  | ✓  |             | 13,500   | 13K5E   |   |    | ✓  |             |                                                                                                                                                                                                                                                                                                                                                           |       |   |    |    |        |
| 18          | 18RE     |      |   |    |         | 250         | 250E     |      | ✓ | ✓       | ✓  | 2,200       | 2K2E     |      | ✓       |    |    |             | 15,000   | 15KE    |   | ✓  | ✓  | ✓           |                                                                                                                                                                                                                                                                                                                                                           |       |   |    |    |        |



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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