

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.

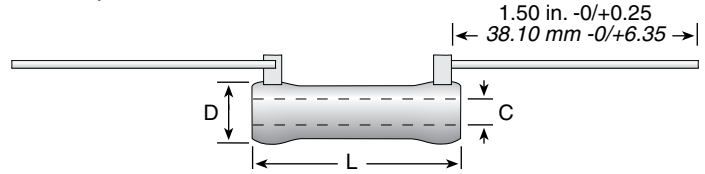
**Temperature coefficient:** 5Ω and under: ±400 ppm/°C  
Above 5Ω: ±260 ppm/°C

**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>B 8 N J 5 R 0 E</b>			
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
<b>2 0 0 N 8 D 5 R 0 0 J E</b>		
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
See web-site for custom core info	Tolerance	F = 1%
		H = 3%
		J = 5%
		K = 10%

## 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](http://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