

# 200 Series

## Brown Devil® Vitreous Enamel Power



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.

### SERIES SPECIFICATIONS

Series	Wattage	Ohms	Lead Gauge	Max. Voltage*
B5	5.25	0.1-20K	20	187
B8	8.0	0.03-25K	18	250
B12	12.0	0.08-51K	18	625
B20	20.0	0.1-100K	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

### CHARACTERISTICS

<b>Coating</b>	lead-free vitreous enamel
<b>Core</b>	Ceramic
<b>Terminals</b>	Tinned axial; RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu
<b>Derating</b>	Linearly from 100% @ +25°C to 0% @ +350°C
<b>Tolerance</b>	1Ω+: ±5% under 1Ω: ±10%
<b>Power rating</b>	Based on 25°C free air rating
<b>Overload</b>	10 times rated wattage for 5 seconds
<b>Temperature coefficient</b>	5Ω and under: ±400 ppm/°C Above 5Ω: ±260 ppm/°C
<b>Max. amps</b>	To calculate, use the formula $\sqrt{P/R}$

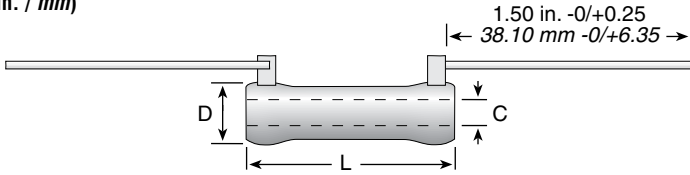
(continued)

# 200 Series

## Brown Devil® Vitreous Enamel Power

### DIMENSIONS

(in. / mm)



Series	Wattage	L	D	C	Lead Gauge
B5	5.25	0.625 / 15.88	0.250 / 6.35	0.135 / 3.43	20
B8	8.0	1.000 / 25.40	0.313 / 7.94	0.188 / 4.76	18
B12	12.0	1.750 / 44.45	0.313 / 7.94	0.188 / 4.76	18
B20	20.0	2.000 / 50.80	0.438 / 11.11	0.250 / 6.35	18

### ORDERING INFORMATION

#### Standard Values

Wattage			Wattage			Wattage			Wattage			Wattage		
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		Prefix	Suffix		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 at <a href="http://www.ohmite.com">www.ohmite.com</a>  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		
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	✓			

Coating  
Blank = Vitreous  
C = Centohm  
S = Silicone

Non-Inductive Winding  
Optional (blank = std. winding)

RoHS Compliant

**B 8 N J 5 R 0 E**

Series

Tolerance  
F = 1%  
H = 3%  
J = 5%  
K = 10%

Ohms  
1R0 = 1Ω  
250 = 250Ω  
1K0 = 1,000Ω  
25K = 25,000Ω  
25K5 = 25,500Ω

#### Made-to-order Parts

Non-Inductive Winding  
Optional (blank = std. winding)

Core Diameter  
See "Core and Terminal Selection"

RoHS Compliant

**200 N 8 D 5 R 0 0 0 J E**

Coating  
200 = Vitreous  
400 = Silicone  
Ceramic

Wattage  
3  
5.25  
8  
12  
20

Ohms  
R500 = 0.500Ω  
1R00 = 1Ω  
250R = 250Ω  
1K00 = 1,000Ω  
25K0 = 25,000Ω  
25K5 = 25,500Ω

Tolerance  
F = 1%  
H = 3%  
J = 5%  
K = 10%

See website for custom core info