

# 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 $\sqrt{P/R}$

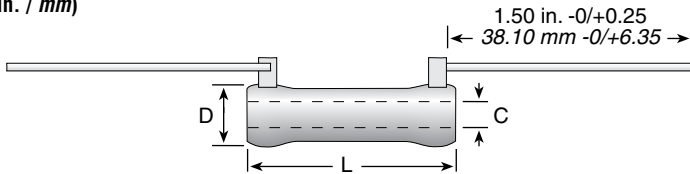
(continued)

# 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. Prefix > Suffix >	5.25 8 12 20	Ohmic value	Part No. Prefix > Suffix >	5.25 8 12 20	Ohmic value	Part No. Prefix > Suffix >	5.25 8 12 20	Ohmic value	Part No. Prefix > Suffix >	5.25 8 12 20	Ohmic value	Part No. Prefix > Suffix >	5.25 8 12 20
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				
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				

✓ = Standard values; check availability 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

Coating  
Blank = Vitreous  
C = Cerohm  
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