

# 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 $\sqrt{P/R}$

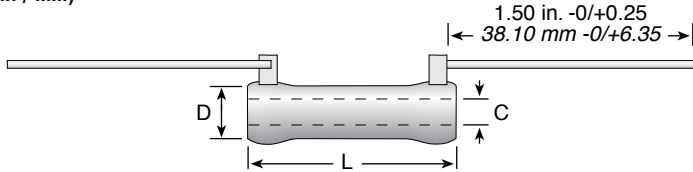
(continued)

# 200 Series

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### 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	Ohmic value	Part No.	Prefix	Suffix	Ohmic value	Part No.	Prefix	Suffix	Ohmic value	Part No.	Prefix	Suffix	Ohmic value	Part No.	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						
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 = Centohm  
 S = Silicone

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

RoHS Compliant

Wattage

**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

Wattage

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%

**2 0 0 N 8 D 5 R 0 0 0 J E**

Coating  
 200 = Vitreous  
 400 = Silicone  
 Ceramic

See website for custom core info