

# 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 $\sqrt{P/R}$

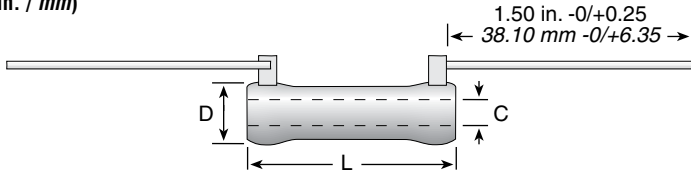
(continued)

# 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

Ohmic value		Wattage		Ohmic value		Wattage		Ohmic value		Wattage		Ohmic value		Wattage															
Part No.	Prefix	5.25	8	12	20	Part No.	Prefix	5.25	8	12	20	Part No.	Prefix	5.25	8	12	20	Part No.	Prefix	5.25	8	12	20	Part No.	Prefix	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 = 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

**2 0 0 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