

# 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 $\sqrt{P/R}$

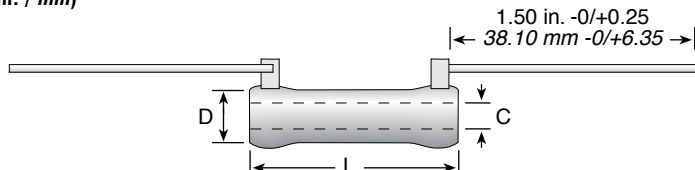
(continued)

# 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	Part No. Prefix Suffix	Wattage 5.25 8 12 20	Ohmic value	Part No. Prefix Suffix	Wattage 5.25 8 12 20	Ohmic value	Part No. Prefix Suffix	Wattage 5.25 8 12 20	Ohmic value	Part No. Prefix Suffix	Wattage 5.25 8 12 20	Ohmic value	Part No. Prefix Suffix	Wattage 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	✓ ✓ ✓ ✓	✓ = Standard values; check availability at <a href="http://www.ohmite.com">www.ohmite.com</a>		
6.2	6R2E	✓ ✓ ✓ ✓	110	110E	✓ ✓ ✓ ✓	910	910E	✓ ✓ ✓ ✓	8,000	8K0E	✓ ✓ ✓ ✓	These values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling:		
6.8	6R8E	✓ ✓ ✓ ✓	120	120E	✓ ✓ ✓ ✓	1,000	1K0E	✓ ✓ ✓ ✓	8,200	8K2E	✓ ✓ ✓ ✓	B5: 6.8K-20KΩ		
7.5	7R5E	✓ ✓ ✓ ✓	125	125E	✓ ✓ ✓ ✓	1,100	1K1E	✓ ✓ ✓ ✓	8,500	8K5E	✓ ✓ ✓ ✓	B8: 12.5K-25KΩ		
8.2	8R2E	✓ ✓ ✓ ✓	130	130E	✓ ✓ ✓ ✓	1,200	1K2E	✓ ✓ ✓ ✓	9,000	9K0E	✓ ✓ ✓ ✓	B12: 30K-51KΩ		
9.1	9R1E	✓ ✓ ✓ ✓	150	150E	✓ ✓ ✓ ✓	1,250	1K25E	✓ ✓ ✓ ✓	9,100	9K1E	✓ ✓ ✓ ✓	B20: 22.5K-100KΩ		
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 = 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

**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

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