

# 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 $\sqrt{P/R}$

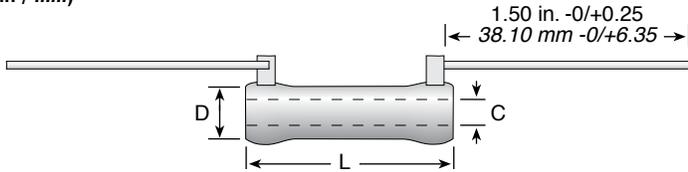
(continued)

# 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	Part No.	Prefix	5.25	8	12	20	
0.5	R50E					20	20RE					270	270E					2,250	2K25E					16,000	16KE					17,500	17K5E					
1	1R0E					22	22RE					300	300E					2,400	2K4E					18,000	18KE					18,000	18KE					
1.1	1R1E					24	24RE					330	330E					2,500	2K5E					20,000	20KE					20,000	20KE					
1.2	1R2E					25	25RE					350	350E					2,700	2K7E					22,500	22K5E					22,500	22K5E					
1.3	1R3E					27	27RE					360	360E					2,750	2K75E					25,000	25KE					25,000	25KE					
1.5	1R5E					30	30RE					390	390E					3,000	3K0E					30,000	30KE					30,000	30KE					
1.6	1R6E					33	33RE					400	400E					3,300	3K3E					35,000	35KE					35,000	35KE					
1.8	1R8E					35	35RE					430	430E					3,500	3K5E					40,000	40KE					40,000	40KE					
2	2R0E					36	36RE					450	450E					3,600	3K6E					45,000	45KE					45,000	45KE					
2.2	2R2E					39	39RE					470	470E					3,900	3K9E					50,000	50KE					50,000	50KE					
2.4	2R4E					40	40RE					500	500E					4,000	4K0E					55,000	55KE					55,000	55KE					
2.7	2R7E					43	43RE					510	510E					4,300	4K3E					60,000	60KE					60,000	60KE					
3	3R0E					47	47RE					560	560E					4,500	4K5E					65,000	65KE					65,000	65KE					
3.3	3R3E					50	50RE					600	600E					4,700	4K7E					70,000	70KE					70,000	70KE					
3.6	3R6E					51	51RE					620	620E					5,000	5K0E					75,000	75KE					75,000	75KE					
3.9	3R9E					56	56RE					650	650E					5,100	5K1E					80,000	80KE					80,000	80KE					
4	4R0E					62	62RE					680	680E					5,600	5K6E					85,000	85KE					85,000	85KE					
4.3	4R3E					68	68RE					700	700E					6,000	6K0E					90,000	90KE					90,000	90KE					
4.7	4R7E					75	75RE					750	750E					6,200	6K2E					95,000	95KE					95,000	95KE					
5	5R0E					82	82RE					800	800E					6,800	6K8E					100,000	100KE					100,000	100KE					
5.1	5R1E					91	91RE					820	820E					7,000	7K0E					✓ = Standard values; check availability at www.ohmite.com												
5.6	5R6E					100	100E					900	900E					7,500	7K5E					These values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling:												
6.2	6R2E					110	110E					910	910E					8,000	8K0E					B5: 6.8K-20KΩ												
6.8	6R8E					120	120E					1,000	1K0E					8,200	8K2E					B8: 12.5K-25KΩ												
7.5	7R5E					125	125E					1,100	1K1E					8,500	8K5E					B12: 30K-51KΩ												
8.2	8R2E					130	130E					1,200	1K2E					9,000	9K0E					B20: 22.5K-100KΩ												
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

**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

# Mouser Electronics

Authorized Distributor

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## Ohmite:

[B20J1K0](#) [B12J20R](#) [B20J1K5E](#) [B20J1K0E](#) [B20J1K2E](#) [B8J1K5E](#) [B8J1K1E](#) [B8J1K0E](#) [B8J1K2E](#) [B20J100KE](#)  
[B20J85KE](#) [B8J12RE](#) [B8J1R5E](#) [B8J125E](#) [B8J1R0E](#) [B5J7R5E](#) [B8J20KE](#) [B12J2K0E](#) [B8J20RE](#) [B8J200E](#) [B5J9K1E](#)  
[B20J1R0E](#) [B20J125E](#) [B20J60KE](#) [B20J100E](#) [B20J10RE](#) [B20J10KE](#) [B5J910E](#) [B5J91RE](#) [B20J70KE](#) [B20J700E](#)  
[B8J2R0E](#) [B8J225E](#) [B8J10RE](#) [B12J25KE](#) [B8J100E](#) [B12J250E](#) [B20J8K0E](#) [B8J10KE](#) [B12J25RE](#) [B8J5R0E](#)  
[B12J75RE](#) [B8J40RE](#) [B12J750E](#) [B20J5K0E](#) [B20J45KE](#) [B20J7K0E](#) [B20J650E](#) [B8J25KE](#) [B8J250E](#) [B12J13K5E](#)  
[B20J7K5E](#) [B8J25RE](#) [B20J65KE](#) [B20J15KE](#) [B5J75RE](#) [B5J750E](#) [B5J9R1E](#) [B20J6K0E](#) [B20J150E](#) [B12J2R0E](#)  
[B12J225E](#) [B12J22K5E](#) [B12J20KE](#) [B12J20RE](#) [B5J7K5E](#) [B12J200E](#) [B8J12K5E](#) [B8J2K5E](#) [B20J800E](#) [B8J2K0E](#)  
[B20J80KE](#) [B8J2K25E](#) [B8J150E](#) [B8J15RE](#) [B20J75KE](#) [B8J15KE](#) [B20J750E](#) [B20J75RE](#) [B5J8K2E](#) [B5J6R8E](#)  
[B5J6R2E](#) [B5J62RE](#) [B5J620E](#) [B12J3K5E](#) [B12J3K0E](#) [B5J510E](#) [B5J51RE](#) [B8J6K0E](#) [B8J75RE](#) [B20J55KE](#)  
[B8J750E](#) [B12J30RE](#) [B12J300E](#) [B5J6K8E](#) [B5J47RE](#) [B12J30KE](#) [B5J470E](#) [B5J6K2E](#) [B5J430E](#)