

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

Coating	lead-free vitreous enamel
Core	Ceramic
Terminals	Tinned axial; RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu
Derating	Linearly from 100% @ +25°C to 0% @ +350°C
Tolerance	1Ω+: ±5% under 1Ω: ±10%
Power rating	Based on 25°C free air rating
Overload	10 times rated wattage for 5 seconds
Temperature coefficient	5Ω and under: ±400 ppm/°C Above 5Ω: ±260 ppm/°C
Max. amps	To calculate, use the formula $\sqrt{P/R}$

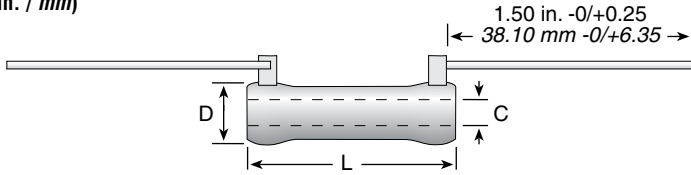
(continued)

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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

Ohmic value		Wattage		Ohmic value		Wattage		Ohmic value		Wattage		Ohmic value		Wattage							
Part No.	Prefix	Suffix	5.25	8	12	20	Part No.	Prefix	Suffix	5.25	8	12	20	Part No.	Prefix	Suffix	5.25	8	12	20	
0.5	—	R50E					20	—	20RE	✓	✓			270	—	270E	✓				
1	—	1R0E	✓	✓	✓	✓	22	—	22RE	✓	✓			300	—	300E	✓	✓	✓	✓	
1.1	—	1R1E					24	—	24RE	✓				330	—	330E	✓	✓	✓		
1.2	—	1R2E					25	—	25RE	✓	✓	✓		350	—	350E	✓	✓	✓		
1.3	—	1R3E					27	—	27RE	✓				360	—	360E					
1.5	—	1R5E	✓	✓	✓		30	—	30RE	✓	✓	✓		390	—	390E	✓				
1.6	—	1R6E	✓	✓	✓		33	—	33RE	✓	✓	✓		400	—	400E	✓	✓	✓		
1.8	—	1R8E	✓				35	—	35RE	✓	✓			430	—	430E	✓	✓	✓		
2	—	2R0E	✓	✓	✓	✓	36	—	36RE					450	—	450E	✓	✓			
2.2	—	2R2E					39	—	39RE	✓				470	—	470E	✓				
2.4	—	2R4E	✓				40	—	40RE	✓	✓	✓		500	—	500E	✓	✓	✓		
2.7	—	2R7E	✓				43	—	43RE	✓	✓			510	—	510E	✓				
3	—	3R0E	✓	✓	✓	✓	47	—	47RE	✓				560	—	560E	✓				
3.3	—	3R3E	✓				50	—	50RE	✓	✓	✓		600	—	600E	✓	✓			
3.6	—	3R6E	✓				51	—	51RE	✓				620	—	620E	✓				
3.9	—	3R9E	✓				56	—	56RE	✓				650	—	650E	✓		✓		
4	—	4R0E	✓	✓	✓	✓	62	—	62RE	✓				680	—	680E	✓				
4.3	—	4R3E	✓				68	—	68RE	✓				700	—	700E	✓	✓	✓		
4.7	—	4R7E	✓				75	—	75RE	✓	✓	✓	✓	750	—	750E	✓	✓	✓		
5	—	5R0E	✓	✓	✓	✓	82	—	82RE	✓	✓	✓	✓	800	—	800E	✓	✓	✓	✓	
5.1	—	5R1E	✓				91	—	91RE	✓				820	—	820E	✓				
5.6	—	5R6E	✓				100	—	100E	✓	✓	✓	✓	900	—	900E	✓	✓			
6.2	—	6R2E	✓				110	—	110E					910	—	910E					
6.8	—	6R8E	✓				120	—	120E	✓				1,000	—	1K0E	✓	✓	✓	✓	
7.5	—	7R5E	✓	✓	✓	✓	125	—	125E	✓	✓	✓	✓	1,100	—	1K1E	✓	✓			
8.2	—	8R2E	✓				130	—	130E	✓				1,200	—	1K2E	✓	✓	✓	✓	
9.1	—	9R1E	✓				150	—	150E	✓	✓	✓		1,250	—	1K25E	✓	✓	✓	✓	
10	—	10RE	✓	✓	✓	✓	160	—	160E	✓				1,300	—	1K3E	✓				
11	—	11RE					180	—	180E	✓				1,500	—	1K5E	✓	✓	✓	✓	
12	—	12RE	✓	✓	✓	✓	200	—	200E	✓	✓	✓	✓	1,600	—	1K6E	✓	✓	✓	✓	
13	—	13RE					220	—	220E	✓	✓	✓		1,750	—	1K75E	✓	✓	✓	✓	
15	—	15RE	✓	✓	✓		225	—	225E	✓				1,800	—	1K8E					
16	—	16RE					240	—	240E	✓				2,000	—	2K0E	✓	✓	✓	✓	
18	—	18RE					250	—	250E	✓	✓	✓		2,200	—	2K2E	✓				

✓ = Standard values; check availability at 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