

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 $\sqrt{P/R}$

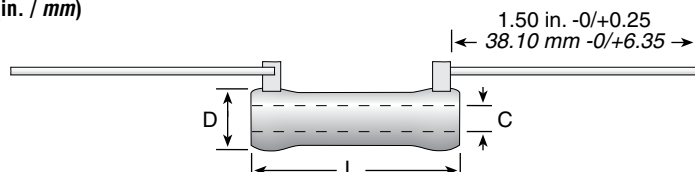
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200 Series

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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

Ohmic value	Part No. Prefix > Suffix >	Wattage 5.25 8 12 20
0.5	R50E	✓
1	1R0E	✓
1.1	1R1E	✓
1.2	1R2E	✓
1.3	1R3E	✓
1.5	1R5E	✓
1.6	1R6E	✓
1.8	1R8E	✓
2	2R0E	✓
2.2	2R2E	✓
2.4	2R4E	✓
2.7	2R7E	✓
3	3R0E	✓
3.3	3R3E	✓
3.6	3R6E	✓
3.9	3R9E	✓
4	4R0E	✓
4.3	4R3E	✓
4.7	4R7E	✓
5	5R0E	✓
5.1	5R1E	✓
5.6	5R6E	✓
6.2	6R2E	✓
6.8	6R8E	✓
7.5	7R5E	✓
8.2	8R2E	✓
9.1	9R1E	✓
10	10RE	✓
11	11RE	✓
12	12RE	✓
13	13RE	✓
15	15RE	✓
16	16RE	✓
18	18RE	✓

Ohmic value	Part No. Prefix > Suffix >	Wattage 5.25 8 12 20
20	20RE	✓
22	22RE	✓
24	24RE	✓
25	25RE	✓
27	27RE	✓
30	30RE	✓
33	33RE	✓
35	35RE	✓
36	36RE	✓
39	39RE	✓
40	40RE	✓
43	43RE	✓
47	47RE	✓
50	50RE	✓
51	51RE	✓
56	56RE	✓
62	62RE	✓
68	68RE	✓
75	75RE	✓
82	82RE	✓
91	91RE	✓
100	100E	✓
110	110E	✓
120	120E	✓
125	125E	✓
130	130E	✓
150	150E	✓
160	160E	✓
180	180E	✓
200	200E	✓
220	220E	✓
225	225E	✓
240	240E	✓
250	250E	✓

Ohmic value	Part No. Prefix > Suffix >	Wattage 5.25 8 12 20
270	270E	✓
300	300E	✓
330	330E	✓
350	350E	✓
360	360E	✓
390	390E	✓
400	400E	✓
430	430E	✓
450	450E	✓
470	470E	✓
500	500E	✓
510	510E	✓
560	560E	✓
600	600E	✓
620	620E	✓
650	650E	✓
680	680E	✓
700	700E	✓
750	750E	✓
800	800E	✓
820	820E	✓
900	900E	✓
910	910E	✓
1,000	1K0E	✓
1,100	1K1E	✓
1,200	1K2E	✓
1,250	1K25E	✓
1,300	1K3E	✓
1,500	1K5E	✓
1,600	1K6E	✓
1,750	1K75E	✓
1,800	1K8E	✓
2,000	2K0E	✓
2,200	2K2E	✓

Ohmic value	Part No. Prefix > Suffix >	Wattage 5.25 8 12 20
2,250	2K25E	✓
2,400	2K4E	✓
2,500	2K5E	✓
2,700	2K7E	✓
2,750	2K75E	✓
3,000	3K0E	✓
3,300	3K3E	✓
3,500	3K5E	✓
3,600	3K6E	✓
3,900	3K9E	✓
4,000	4K0E	✓
4,300	4K3E	✓
4,500	4K5E	✓
4,700	4K7E	✓
5,000	5K0E	✓
5,100	5K1E	✓
5,600	5K6E	✓
6,000	6K0E	✓
6,200	6K2E	✓
6,800	6K8E	✓
7,000	7K0E	✓
7,500	7K5E	✓
8,000	8K0E	✓
8,200	8K2E	✓
8,500	8K5E	✓
9,000	9K0E	✓
9,100	9K1E	✓
10,000	10KE	✓
11,000	11KE	✓
12,000	12KE	✓
12,500	12K5E	✓
13,000	13KE	✓
13,500	13K5E	✓
15,000	15KE	✓

Ohmic value	Part No. Prefix > Suffix >	Wattage 5.25 8 12 20
16,000	16KE	✓
17,500	17K5E	✓
18,000	18KE	✓
20,000	20KE	✓
22,500	22K5E	✓
25,000	25KE	✓
30,000	30KE	✓
35,000	35KE	✓
40,000	40KE	✓
45,000	45KE	✓
50,000	50KE	✓
55,000	55KE	✓
60,000	60KE	✓
65,000	65KE	✓
70,000	70KE	✓
75,000	75KE	✓
80,000	80KE	✓
85,000	85KE	✓
90,000	90KE	✓
95,000	95KE	✓
100,000	100KE	✓

✓ = 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