

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

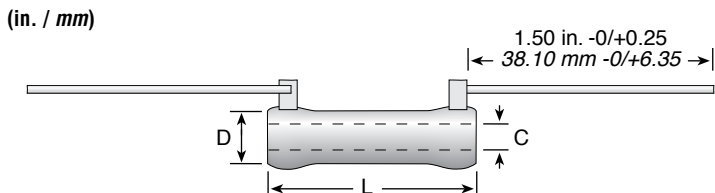
Coating	lead-free vitreous enamel
Core	Ceramic
Terminals	Tinned axial; RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu
Derating	Linearly from 100% @ +25°C to 0% @ +350°C
Tolerance	1Ω+: ±5% under 1Ω: ±10%
Power rating	Based on 25°C free air rating
Overload	10 times rated wattage for 5 seconds
Temperature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

(continued)

200 Series

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DIMENSIONS



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 www.ohmite.com		
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 = Centohm
S = Silicone

Non-Inductive Winding
Optional (blank = std. winding)

RoHS Compliant

B 8 N J 5 R 0 E

Series | Tolerance | Ohms
F = 1%
H = 3%
J = 5%
K = 10%

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

200 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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