

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 $\sqrt{P/R}$

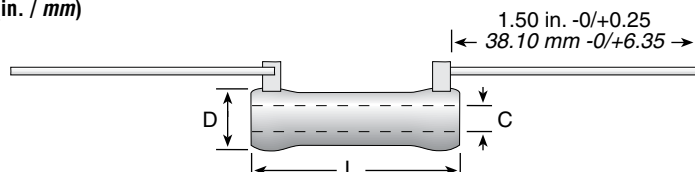
(continued)

200 Series

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DIMENSIONS

(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

Wattage					Wattage					Wattage					Wattage					Wattage														
Ohmic value	Part No.		5.25	8	12	20	Ohmic value	Part No.		5.25	8	12	20	Ohmic value	Part No.		5.25	8	12	20	Ohmic value	Part No.		5.25	8	12	20							
	Prefix	Suffix						Prefix	Suffix						Prefix	Suffix						Prefix	Suffix					Prefix	Suffix					
0.5	R	50E					20	R	20RE					270	R	270E					2,250	R	2K25E					16,000	R	16KE				
1	R	10E					22	R	22RE					300	R	300E					2,400	R	2K4E					17,500	R	17K5E				
1.1	R	11E					24	R	24RE					330	R	330E					2,500	R	2K5E					18,000	R	18KE				
1.2	R	12E					25	R	25RE					350	R	350E					2,700	R	2K7E					20,000	R	20KE				
1.3	R	13E					27	R	27RE					360	R	360E					2,750	R	2K75E					22,500	R	22K5E				
1.5	R	15E					30	R	30RE					390	R	390E					3,000	R	3K0E					25,000	R	25KE				
1.6	R	16E					33	R	33RE					400	R	400E					3,300	R	3K3E					30,000	R	30KE				
1.8	R	18E					35	R	35RE					430	R	430E					3,500	R	3K5E					35,000	R	35KE				
2	R	20E					36	R	36RE					450	R	450E					3,600	R	3K6E					40,000	R	40KE				
2.2	R	22E					39	R	39RE					470	R	470E					3,900	R	3K9E					45,000	R	45KE				
2.4	R	24E					40	R	40RE					500	R	500E					4,000	R	4K0E					50,000	R	50KE				
2.7	R	27E					43	R	43RE					510	R	510E					4,300	R	4K3E					55,000	R	55KE				
3	R	30E					47	R	47RE					560	R	560E					4,500	R	4K5E					60,000	R	60KE				
3.3	R	33E					50	R	50RE					600	R	600E					4,700	R	4K7E					65,000	R	65KE				
3.6	R	36E					51	R	51RE					620	R	620E					5,000	R	5K0E					70,000	R	70KE				
3.9	R	39E					56	R	56RE					650	R	650E					5,100	R	5K1E					75,000	R	75KE				
4	R	40E					62	R	62RE					680	R	680E					5,600	R	5K6E					80,000	R	80KE				
4.3	R	43E					68	R	68RE					700	R	700E					6,000	R	6K0E					85,000	R	85KE				
4.7	R	47E					75	R	75RE					750	R	750E					6,200	R	6K2E					90,000	R	90KE				
5	R	50E					82	R	82RE					800	R	800E					6,800	R	6K8E					95,000	R	95KE				
5.1	R	51E					91	R	91RE					820	R	820E					7,000	R	7K0E					100,000	R	100KE				
5.6	R	56E					100	R	100E					900	R	900E					7,500	R	7K5E					✓ = 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						
6.2	R	62E					110	R	110E					910	R	910E					8,000	R	8K0E											
6.8	R	68E					120	R	120E					1,000	R	1K0E					8,200	R	8K2E											
7.5	R	75E					125	R	125E					1,100	R	1K1E					8,500	R	8K5E											
8.2	R	82E					130	R	130E					1,200	R	1K2E					9,000	R	9K0E											
9.1	R	91E					150	R	150E					1,250	R	1K25E					9,100	R	9K1E											
10	R	10RE					160	R	160E					1,300	R	1K3E					10,000	R	10KE											
11	R	11RE					180	R	180E					1,500	R	1K5E					11,000	R	11KE											
12	R	12RE					200	R	200E					1,600	R	1K6E					12,000	R	12KE											
13	R	13RE					220	R	220E					1,750	R	1K75E					12,500	R	12K5E											
15	R	15RE					225	R	225E					1,800	R	1K8E					13,000	R	13KE											
16	R	16RE					240	R	240E					2,000	R	2K0E					13,500	R	13K5E											
18	R	18RE					250	R	250E					2,200	R	2K2E					15,000	R	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

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