

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 $\sqrt{P/R}$

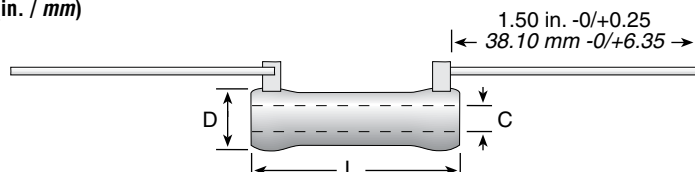
(continued)

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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

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	—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 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	—6R2E	✓					110	—110E	✓					910	—910E					8,000	—8K0E		✓	✓	✓					
6.8	—6R8E	✓					120	—120E	✓					1,000	—1K0E	✓	✓	✓	✓	8,200	—8K2E	✓								
7.5	—7R5E	✓	✓	✓	✓		125	—125E		✓	✓	✓	✓	1,100	—1K1E	✓	✓			8,500	—8K5E									
8.2	—8R2E	✓					130	—130E			✓			1,200	—1K2E	✓		✓	✓	9,000	—9K0E		✓		✓					
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	Wattage	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	

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 000 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