

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.

See page 36
for mounting hardware

SPECIFICATIONS

Material

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.

Electrical

Tolerance: 1Ω+: ±5%
under 1Ω: ±10%

Power rating: Based on 25°C free air rating.

Overload: 10 times rated wattage for 5 seconds.

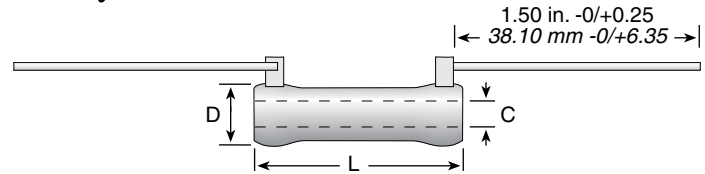
Temperature coefficient: 5Ω and under: ±400 ppm/°C
Above 5Ω: ±260 ppm/°C

To calculate max. amps: use the formula $\sqrt{P/R}$.



200 Series

Brown Devil® Vitreous Enamel Power



			Dimensions (in. / mm)			Lead Gauge	Max. Volt. *
Series	Wattage	Ohms	L	D	C		
B5	5.25	0.1-20K	0.625 / 15.88	0.250 / 6.35	0.135 / 3.43	20	187
B8	8.0	0.03-25K	1.000 / 25.40	0.313 / 7.94	0.188 / 4.76	18	250
B12	12.0	0.08-51K	1.750 / 44.45	0.313 / 7.94	0.188 / 4.76	18	625
B20	20.0	0.1-100K	2.000 / 50.80	0.438 / 11.11	0.250 / 6.35	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

ORDERING INFO

Coating	Non-Inductive Winding	RoHS Compliant
Blank = Vitreous C = Centohm S = Silicone	Optional (blank = std. winding)	
B 8 N J 5 R 0 E		
Series	Wattage	Ohms
		Tolerance
		F = 1% H = 3% J = 5% K = 10%
		1R0 = 1 Ω 250 = 250 Ω 1K0 = 1,000 Ω 25K = 25,000 Ω 25K5 = 25,500 Ω

MADE-TO-ORDER PARTS

Non-Inductive Winding	Core Diameter	RoHS Compliant
Optional (blank = std. winding)	See "Core and Terminal Selection"	
2 0 0 N 8 D 5 R 0 0 J E		
Coating	Wattage	Ohms
200 = Vitreous 400 = Silicone Ceramic	3 5.25 8 12 20	R500 = 0.500 Ω 1R00 = 1 Ω 250R = 250 Ω 1K00 = 1,000 Ω 25K0 = 25,000 Ω 25K5 = 25,500 Ω
		Tolerance
		F = 1% H = 3% J = 5% K = 10%

See web-site for custom core info

STANDARD PART NUMBERS FOR 200 SERIES

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	Ohmic value	Part No.	5.25	8	12	20		
	Prefix						Suffix						Prefix						Suffix						Prefix					Suffix	Prefix
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 using the world-wide inventory search at www.ohmite.com						
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		✓		✓	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						
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		✓	✓	✓							