

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 $\sqrt{P/R}$

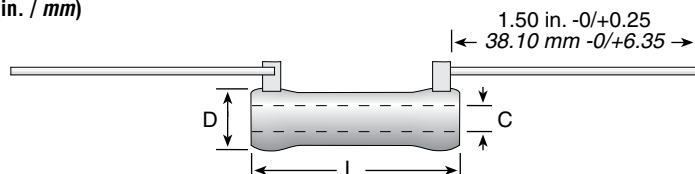
(continued)

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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 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