

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 $\sqrt{P/R}$

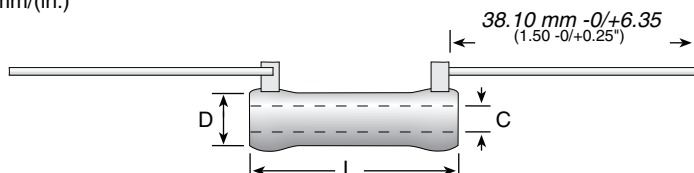
(continued)

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DIMENSIONS

mm/(in.)



Series	Wattage	L	D	C	Lead Gauge
B5	5.25	15.88 / (0.625")	6.35 / (0.250")	3.43 / (0.135")	20
B8	8.0	25.40 / (1.000")	7.94 / (0.313")	4.76 / (0.188")	18
B12	12.0	44.45 / (1.750")	7.94 / (0.313")	4.76 / (0.188")	18
B20	20.0	50.80 / (2.000")	11.11 / (0.438")	6.35 / (0.250")	18

ORDERING INFORMATION

Standard Values

Wattage					Wattage					Wattage					Wattage					Wattage									
Ohmic value	Part No.	Prefix	Suffix	B5J B8J B12J B20J	5.25 8 12 20	Ohmic value	Part No.	Prefix	Suffix	B5J B8J B12J B20J	5.25 8 12 20	Ohmic value	Part No.	Prefix	Suffix	B5J B8J B12J B20J	5.25 8 12 20	Ohmic value	Part No.	Prefix	Suffix	B5J B8J B12J B20J	5.25 8 12 20						
	5.25 8 12 20						5.25 8 12 20						5.25 8 12 20						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 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

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
Optional (blank = std. winding)

Winding

Core Diameter
See "Core and Terminal Selection"

RoHS
Compliant

2 0 0 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 web-site for custom core info