

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.

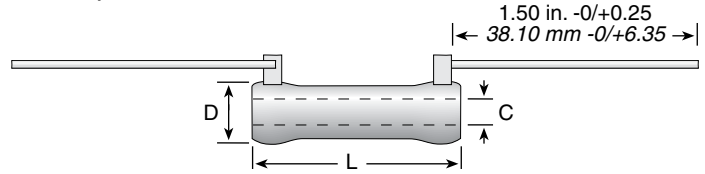
**Temperature coefficient:** 5Ω and under: ±400 ppm/°C  
Above 5Ω: ±260 ppm/°C

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



# 200 Series

## Brown Devil® Vitreous Enamel Power



Series	Wattage	Ohms	Dimensions (in. / mm)			Lead Gauge	Max. Volt. *
			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** - B5N10RE  
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 Blank = Vitreous C = Centohm S = Silicone	Wattage	Non-Inductive Winding Optional (blank = std. winding)	RoHS Compliant
<b>B 8 N J 5 R 0 E</b>			
Series	Tolerance	Ohms	RoHS Compliant
	F = 1%	1R0 = 1 Ω	
	H = 3%	250 = 250 Ω	
	J = 5%	1K0 = 1,000 Ω	
	K = 10%	25K = 25,000 Ω	
		25K5 = 25,500 Ω	

## MADE-TO-ORDER PARTS

Non-Inductive Winding Optional (blank = std. winding)	Core Diameter See "Core and Terminal Selection"	RoHS Compliant
<b>2 0 0 N 8 D 5 R 0 0 J E</b>		
Coating 200 = Vitreous 400 = Silicone Ceramic	Wattage	Ohms
	3	R500 = 0.500 Ω
	5.25	1R00 = 1 Ω
	8	250R = 250 Ω
	12	1K00 = 1,000 Ω
	20	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.	Ohmic value	Part No.	Ohmic value	Part No.	Ohmic value	Part No.	Ohmic value	Part No.
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 using the world-wide inventory search at <a href="http://www.ohmite.com">www.ohmite.com</a>	
6.2	6R2E	110	110E	910	910E	8,000	8K0E	These values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling:	
6.8	6R8E	120	120E	1,000	1K0E	8,200	8K2E	B5: 6.8K-20KΩ	
7.5	7R5E	125	125E	1,100	1K1E	8,500	8K5E	B8: 12.5K-25KΩ	
8.2	8R2E	130	130E	1,200	1K2E	9,000	9K0E	B12: 30K-51KΩ	
9.1	9R1E	150	150E	1,250	1K25E	9,100	9K1E	B20: 22.5K-100KΩ	
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		