



# 250 Series

## 'Thin' Stackohm® Vitreous Enamel Power Resistors

When limited space is a consideration, choose Ohmite's "thin" stackable 250 Type resistors. These oval-shaped ceramic-core resistors feature a low profile to permit installation in spaces with minimal height. They are also equipped with integral mounting brackets so they can be fastened to a chassis and stacked in locations with limited surface area.

When properly fastened, the mounting brackets add a heat sinking benefit resulting in a smaller size per watt. Durable 250 Type resistors are fully welded and coated with lead free vitreous enamel.

### FEATURES

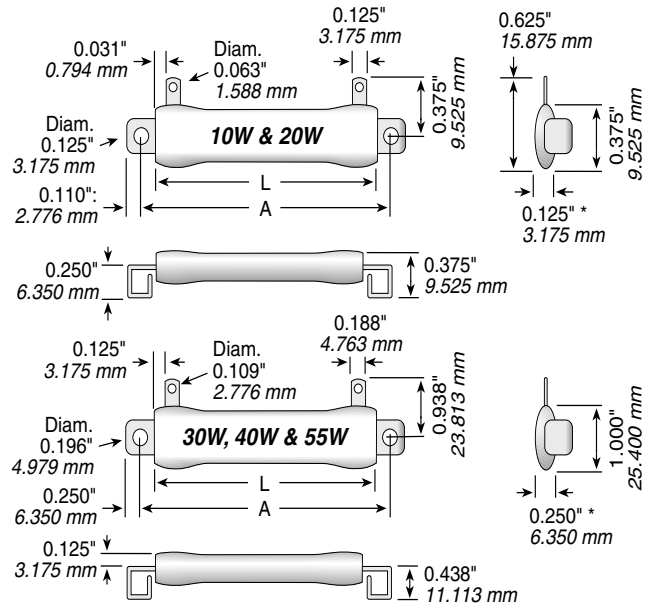
- Small size-to-power ratio.
- Stackable
- Integral mounting bracket conducts heat to mounting surface.
- Low profile for use in equipment where space is limited.
- All-welded construction.

- RoHS compliant product available Jan. 2006 Add "E" suffix to part number to specify.

### SPECIFICATIONS

**Material**  
**Coating:** Lead free vitreous enamel.  
**Core:** Ceramic.  
**Terminals:** Tinned lug with hole.  
**Derating:** Linearly from 100% @ +25°C to 0% @ +350°C.  
**Electrical**  
**Tolerance:** ±5% (J)  
**Power rating:** Based on mounting a single resistor on a metal surface measuring 10" (254mm) square by .04" (1.016mm) thick. Reduce rating by 15% when mounting on non-metallic surface.  
**Overload:** 5 times rated wattage for 5 seconds.  
**Temperature coefficient:** 1 to 20Ω: ±400 ppm/°C  
 Over 20Ω: ±260 ppm/°C  
**Dielectric withstanding voltage:** 500 VAC: 10 and 20 watt rating.  
 1000 VAC: 30, 40 and 55 watt rating (measured from lug to mounting bracket)  
**To calculate max. amps:** use the formula  $\sqrt{P/R}$

**Note:** When resistors are stacked, use washers or spacers as required to insure clearance and improve power dissipation.



\*Reference dimension only; varies according to resistance value.

### ORDERING INFO

Series	RoHS Compliant	
<b>F 2 0 J 1 R 0 E</b>		
Wattage	Tolerance	Ohms
F = 1%	F = 1%	1R0 = 1 Ω
H = 3%	H = 3%	250 = 250 Ω
J = 5%	J = 5%	1K0 = 1,000 Ω
K = 10%	K = 10%	25K = 25,000 Ω
		25K5 = 25,500 Ω

### MADE-TO-ORDER PARTS

See page 42 for custom core info

Terminal Type: See "Resistor Terminals for Tubular Cores"

RoHS Compliant

## 2 5 3 0 T E 5 7 S B 1 R 0 0 E

Series	Wattage & Core Code	Mounting Brackets	Ohms
Vitreous enamel: 25 = 250 Fixed 26 = 260 Adjustable	See "Core and Terminal Selection"	(user supplies bracket for core TB) SB = Stacking box SS = Stacking stud, std. height SSH = Stacking stud high U = Unit type	Example: 1R00 = 1 Ω 250R = 250 Ω 1K00 = 1,000 Ω 25K0 = 25,000 Ω 25K5 = 25,500 Ω
Silicone ceramic: 45 = 450 Fixed 46 = 460 Adjustable			

Series	Wattage	Ohms	Dimensions (in. /mm)		Voltage
			Length L	Length A	
F10	10	1.0-15K	0.750 / 19.050	1.000 / 25.400	187
F20	20	1.0-50K	2.000 / 50.800	2.313 / 58.750	815
F30	30	1.0-10K	1.250 / 31.750	2.000 / 50.800	281
F40	40	1.0-25K	2.000 / 50.800	2.750 / 69.850	655
F55	55	1.0-30K	3.500 / 88.900	4.250 / 107.950	1405

Adjustable versions available. Consult factory.  
 Other sizes available. Consult factory.  
 Also available in low cost Centohm coating. Consult Factory.

### STANDARD PART NUMBERS FOR STANDARD RESISTANCE VALUES

Ohmic value	Part No. Prefix Suffix	Wattage					Ohmic value	Part No. Prefix Suffix	Wattage					Ohmic value	Part No. Prefix Suffix	Wattage													
		10	20	30	40	55			10	20	30	40	55			10	20	30	40	55									
1	1R0	✓	+	✓	+	+	125	125	✗						3,000	3K0	+	✗	✓	✓	✓								
1.5	1R5			✓	+	+	150	150	✗	✓	✗	✗	✗		3,500	3K5	✗	✗	✗	✗	✗								
2	2R0	✓	✓	✓	+	+	200	200	✗	✗	✓	✓	✓		4,000	4K0	✗	✓	✓	✓	✓								
3	3R0			✓	+	+	250	250	✗	✗	✗	✗	+	+	5,000	5K0	✗	✓	✗	✗	✗								
4	4R0			✓	+	+	300	300	✗	✓					6,000	6K0	✗												
5	5R0	+	+	✓	+	+	400	400	+	✗	✗	✓	✓		7,500	7K5		✓	✗	✗	✗								
7.5	7R5	✓	✓	✓	✓	+	500	500	✓	✓	✓	✓	+	✓	10,000	10K	✗	✗	✓	✓	✓								
10	10R	✓	✓	✓	✗	✗	600	600	✗						12,500	12K5	✗												
15	15R	✓	+	+			750	750			✓	✓	✗	✗	15,000	15K	✗			✓	✗								
20	20R	✓					800	800		✓					20,000	20K	✗			✓	✗								
25	25R	+	+	+	+	+	1,000	1K0	✓	+	+	✓	✓		25,000	25K				✓	✗								
30	30R	✓					1,250	1K25	✓	✓					30,000	30K	✗					✗							
40	40R	✗	✗	✗	✗	✓	1,500	1K5	✓	✓	+	✗	✓		35,000	35K	✗												
50	50R	✓	✗	✓	✓	✓	1,750	1K75	✗						40,000	40K	✓												
75	75R	✗	✗	+	✗	+	2,000	2K0	✗	✓	✗	✗	+	+	50,000	50K	✗												
100	100	+	✓	+	+	✓	2,500	2K5	✓	✓	✓	✓	✓																

+ = Most popular Standard values  
 ✓ = Standard values  
 ✗ = Non-Standard values subject to minimum handling charge per item  
 Shaded values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling.