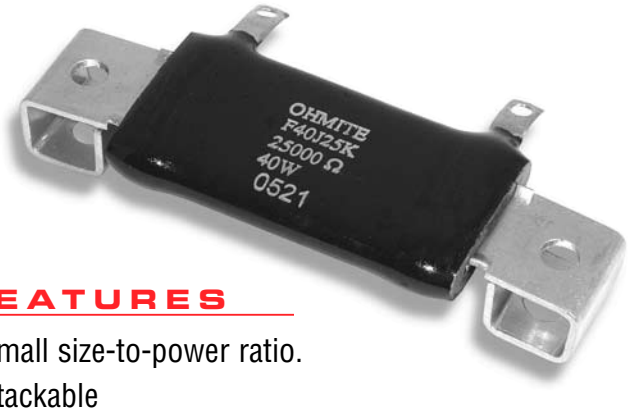
250 Series

'Thin' Stackohm®
Vitreous Enamel Power



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 height restrictions. 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. Add "E" suffix to part number to specify.

SERIES SPECIFICATIONS

Series	Wattage	Ohms	Max. Voltage*
F10	10	1.0-15K	187
F20	20	1.0-50K	815
F30	30	1.0-10K	281
F40	40	1.0-25K	655
F55	55	1.0-30K	1405

Adjustable versions and other sizes available; Consult Ohmite Also available in low cost Centohm or Silicone coating; Consult Ohmite.

* Maximum Voltage is based on Ohm's Law [V=√P*R] as limited by the resistance value of specified product

CHARACTERISTICS

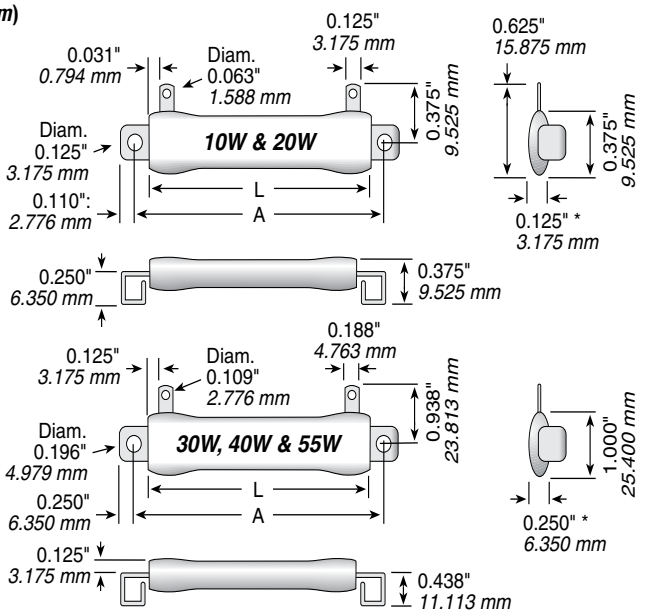
Coating	Lead free vitreous enamel
Core	Ceramic
Terminals	Tinned lug with hole. RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu
Derating	Linearly from 100% @ +25°C to 0% @ +350°C
Tolerance	±5% (J)
Power rating	Based on mounting a single resistor on a metal surface measuring 10" (254mm) square by 0.04" (1.016mm) thick. Reduce rating by 15% when mounting on non-metallic surface
Overload	10x rated wattage for 5 seconds if max. voltage is not exceeded
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)
Max. amps	To calculate, use the formula √P/R

250 Series

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DIMENSIONS

(in. / *mm*)



Series	Wattage	Length L	Length A
F10	10	0.750 / 19.050	1.000 / 25.400
F20	20	2.000 / 50.800	2.313 / 58.750
F30	30	1.250 / 31.750	2.000 / 50.800
F40	40	2.000 / 50.800	2.750 / 69.850
F55	55	3.500 / 88.900	4.250 / 107.950

*Reference dimension only; varies according to resistance value.

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

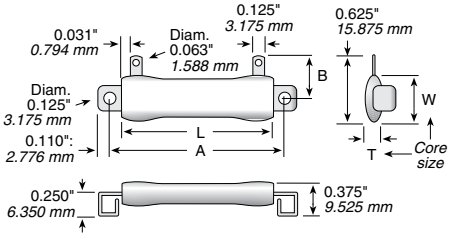
MOUNTING

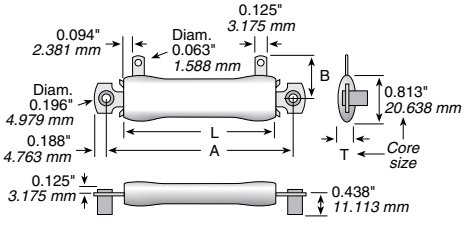
In addition to the standard box bracket, stud type brackets are available for stacking the standard size resistors. Stud type brackets are available in two heights: standard (SS, 0.437"/11.113mm) and high (SSH, 0.531"/13.494mm). The SSH stud is recommended when stacking the adjustable Type 260, as it assures clearance for the adjustable lugs to pass eachother. Spacer washer No. 6027 (O.D. 0.219"/5.556mm, I.D. 0.125"/3.175mm, thickness 0.094"/2.381mm) is recommended for use with the miniature adjustable and fixed resistors to provide clearance, as explained above, or increased wattage. See chart.

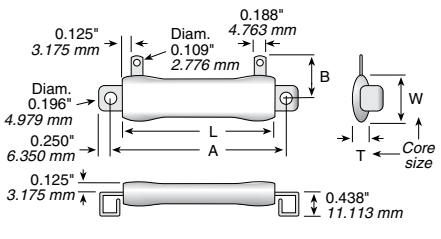
Derating for stacked mounting

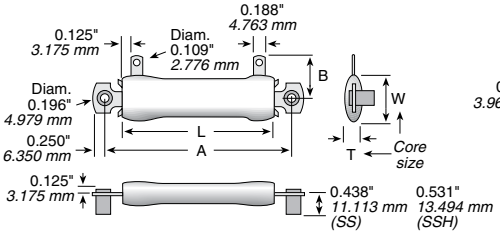
Stacked resistors should be derated to prevent excessive temperatures due to proximity. Approximate ratings are given in the table.

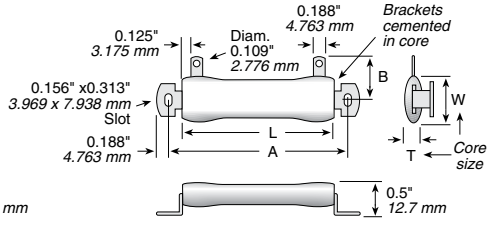
No. of Resistors	Percent of Single Unit Rating		
	Std. or Inter.	Miniature	Miniature with 0.094" (2.381 mm) Spacer Washer
2	70	70	75
3	60	60	69
4	50	50	60











(continued)

250 Series

'Thin' Stackohm® Vitreous Enamel Power

CORE AND TERMINAL SELECTION

For Made to Order Type 250 Stackohm Resistors

Free Air Wattage Rating*	Core Dimensions† Length L	Width W	Thickness T	Min. Ohms	Max. Practical Ohms	Code for Core Dia.	Fig. No.	Dimension A	Dimension B	Standard Terminal
Miniature										
10	0.750" (19.050mm)	0.375" (9.525mm)	0.125" (3.175mm)	1	15,000	TA	1	1.000" (25.400mm)	0.375" (9.525mm)	51
15	1.000" (25.400mm)	0.375" (9.525mm)	0.125" (3.175mm)	1	25,000	TA	1	1.250" (31.750mm)	0.375" (9.525mm)	51
20	2.000" (50.800mm)	0.375" (9.525mm)	0.125" (3.175mm)	1	50,000	TA	1	2.313" (58.750mm)	0.375" (9.525mm)	51
12	0.688" (17.463mm)	0.594" (15.081mm)	0.234" (5.953mm)	1	20,000	TB	**			51
Intermediate										
21	1.000" (25.400mm)	0.813" (20.638mm)	0.250" (6.350mm)	1	8,000	TD	2	1.313" (33.350mm)	0.594" (15.081mm)	51
25	1.500" (38.100mm)	0.813" (20.638mm)	0.250" (6.350mm)	1	15,000	TD	2	1.813" (46.050mm)	0.594" (15.081mm)	51
Standard										
30	1.250" (31.750mm)	1.000" (25.400mm)	0.250" (6.350mm)	1	10,000	TE	5 3, 4	1.750" (44.450mm) 2.000" (50.800mm)	0.938" (23.813mm)	57
40	2.000" (50.800mm)	1.000" (25.400mm)	0.250" (6.350mm)	1	25,000	TE	5 3, 4	2.500" (63.500mm) 2.750" (69.850mm)	0.938" (23.813mm)	57
55	3.500" (88.900mm)	1.000" (25.400mm)	0.250" (6.350mm)	1	30,000	TE	5 3, 4	4.000" (1.1.600mm) 4.250" (107.950mm)	0.938" (23.813mm)	57
70	4.750" (120.650mm)	1.000" (25.400mm)	0.250" (6.350mm)	1	120,000‡	TE	5 3, 4	5.250" (133.350mm) 5.500" (139.700mm)	0.938" (23.813mm)	57
95	6.000" (152.400mm)	1.000" (25.400mm)	0.250" (6.350mm)	1	150,000‡	TE	5 3, 4	6.500" (165.100mm) 6.750" (171,450mm)	0.938" (23.813mm)	57

*Based on mounting on steeel panel 10" (254mm) x 10" x 0.040" (1.016mm).

†Inside dimensions of core are: 0.250" (6.350mm) x 0.047" (1.191mm) for TA; 0.406" (10.319mm) x 0.047" (1.191mm) for TB; 0.438" (11.113mm) x 0.063" (1.588mm) for TD; 0.672" (17.069mm) x 0.063" (1.588mm) for TE.

‡These sizes are Ohmicone (silicone-ceramic) coated–type 450-460.

**User supplies brackets.

ORDERING INFORMATION

Series — RoHS Compliant

F 2 0 J 1 R 0 E

Coating
Blank = Vitreous
C = Centohm
S = Silicone

Wattage

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

See web-site for custom core info

Terminal Type — See "Resistor Terminals for Tubular Cores"

Tolerance J = 5% — **RoHS Compliant**

2 5 3 0 T E 5 7 B 1 R 0 0 J E

Series
Vitreous enamel:
25 = 250 Fixed
26 = 260 Adjustable
Silicone ceramic:
45 = 450 Fixed
46 = 460 Adjustable

Wattage & Core Code
See "Core and Terminal Selection"

Mounting Brackets
(user supplies bracket for core TB)
B = Stacking box
S = Stacking stud, std. height
H = Stacking stud high
U = Unit type

Ohms
Example:
1R00 = 1Ω
250R = 250Ω
1K00 = 1,000Ω
25K0 = 25,000Ω
25K5 = 25,500Ω

Standard Values

Ohmic value	Part No. Prefix ➤ Suffix ▼	Wattage 10 F10J	20 F20J	30 F30J	40 F40J	55 F55J
1	1R0E	✔	✔	✔	✔	✔
1.5	1R5E			✔	✔	✔
2	2R0E	✔	✔	✔	✔	✔
3	3R0E			✔	✔	✔
4	4R0E				✔	✔
5	5R0E	✔	✔	✔	✔	✔
7.5	7R5E	✔			✔	✔
10	10RE	✔	✔		✔	✔
15	15RE	✔	✔	✔		
20	20RE	✔				
25	25RE	✔	✔	✔	✔	✔
30	30RE	✔				
40	40RE					✔

Ohmic value	Part No. Prefix ➤ Suffix ▼	Wattage 10 F10J	20 F20J	30 F30J	40 F40J	55 F55J
50	50RE	✔		✔	✔	✔
75	75RE			✔		✔
100	100E	✔	✔	✔	✔	✔
150	150E		✔			
200	200E	✔		✔	✔	✔
250	250E		✔	✔	✔	✔
300	300E		✔			
400	400E	✔			✔	✔
500	500E	✔	✔	✔	✔	✔
750	750E			✔	✔	
800	800E		✔			
1,000	1K0E	✔	✔	✔	✔	✔
1,250	1K25E	✔	✔			

Ohmic value	Part No. Prefix ➤ Suffix ▼	Wattage 10 F10J	20 F20J	30 F30J	40 F40J	55 F55J
1,500	1K5E	✔	✔	✔		✔
2,000	2K0E		✔		✔	✔
2,500	2K5E	✔	✔	✔	✔	✔
3,000	3K0E	✔		✔	✔	✔
4,000	4K0E			✔		✔
5,000	5K0E		✔			
6,000	6K0E					
7,500	7K5E		✔			
10,000	10KE				✔	✔
15,000	15KE				✔	
20,000	20KE				✔	
25,000	25KE				✔	
40,000	40KE		✔			

✔ = Standard values; check availability at www.ohmite.com

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Ohmite:

F40J400 F55J500 F55J5R0 F40J10K F30J3K0 F30J100 F40J2K5 F30J50R F20J25K F20J10R F30J750 F55J1K5 F55J1K0 F55J40R F10J40R F20J5R0 F30J75R F55J200 F55J2K5 F55J2K0 F40J5K0 F40J75R F40J100 F10J1K0 F30J5R0 F55J100 F55J2K5E F30J1K5E F10J1K5E F40J1K5E F20J1K5E F55J2K0E F40J1K0E F20J1K0E F10J1K0E F30J1K0E F40J7R5E F10J7R5E F40J1R5E F30J1R5E F55J2R0E F30J1R0E F10J1R0E F10J125E F10J600E F20J100E F40J100E F30J100E F10J100E F55J200E F30J10RE F20J10RE F40J10RE F30J10KE F40J10KE F20J10KE F55J20KE F55J3R0E F55J150E F10J5K0E F30J5K0E F20J5K0E F40J5K0E F55J15KE F20J7K5E F40J7K5E F30J7K5E F40J15KE F20J15KE F55J25KE F55J3K0E F55J25RE F20J15RE F30J15RE F10J15RE F20J6K0E F55J250E F30J150E F10J150E F40J150E F20J150E F20J800E F40J750E F30J750E F10J750E F10J75RE F30J75RE F20J75RE F40J75RE F20J12K5E F55J1K5E F20J4K0E F40J4K0E F30J4K0E F10J4K0E F55J1K0E F55J4K0E F55J75RE F55J750E F20J1K25E