HS/HSN Series

Aluminum Housed Axial Lead Wirewound Resistors Industrial/Commercial Grade

The Ward Leonard brand, HS/HSN Series, complements Ohmite's Military grade 89 Series as a lower cost alternative. The HS/HSN Series offers the added feature of larger sizes (100 and 250 watts) not available in the 89 Series.

HS/HSN Series maintains the same construction, materials, and manufacturing techniques as the Mil-R-18546 approved 89 Series. As a made-to-order product, it is recommended for higher volume applications.

FEATURES

- Standard winding (Model HS)
- Non-inductive winding (Model HSN)
- Molded construction for total environmental protection
- Complete welded construction
- Mounts on chassis to utilize heat-sink effect
- High stability at conventional power ratings
- Flat marking surface for easy identification
- RoHS compliant product available Jan. 2006 Add "E" suffix to part number to specify.

SPECIFICATIONS

Material

Housing: Aluminum with hard anodic coating.

Internal Coating: Silicone.

Core: Ceramic.

Terminals: Solder-coated axial lead.

Derating: Linearly from 100% @ +25°C to 0% @ +275°C.

Electrical

Tolerance: ±1% and ±5% (other tolerances available).

Power rating: Rating is based on chassis mounting area and temperature stability. Proper heat sink as follows: 25W units, 5" x 7" x 2" x 0.040" Aluminum chassis; 50W units, 12" x 12" x 0.059" Aluminum panel; 100 and 250W units, 12" x 12" x 0.125 Aluminum panel.

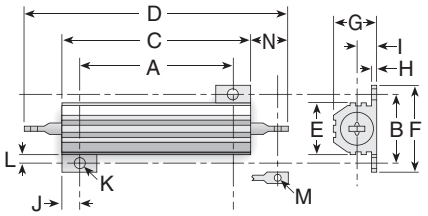
Maximum ohmic values: See chart.

Overload: 5 times rated wattage for 5 seconds.

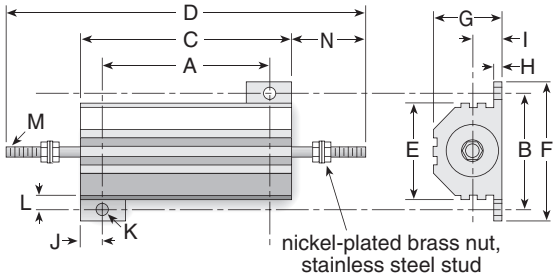
Temperature coefficient: Under 1Ω: ±90 ppm/°C
1 to 9.99Ω: ±50 ppm/°C
10Ω and over: ±30 ppm/°C.

Dielectric withstanding voltage: 25W, 1000VAC; 50W, 2000VAC; 100W and 250W, 4500VAC.

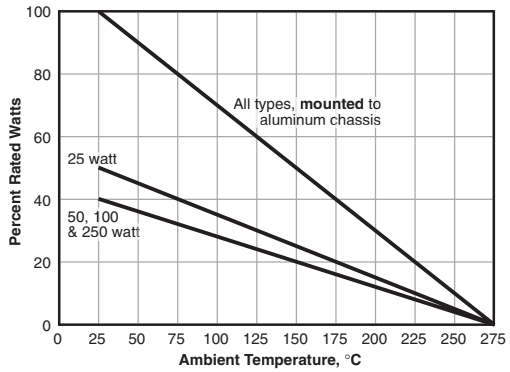
25 & 50 watt



100 & 250 watt



DERATING CURVE



Series	Power Rating (Watts)	Resistance Range (Ohms)	Max. Working Voltage
HS25	25	.10 - 12.1K	550
HSN25	25	.005 - 6.04K	390
HS50	50	.10 - 39.2K	1250
HSN50	50	.005 - 19.6K	890
HS100	100	.05 - 29.4K	1900
HSN100	100	1.0 - 14.7K	1350
HS250	250	.10 - 35.7K	2300
HSN250	250	1.0 - 17.4K	1625

DIMENSIONS

in. *(mm)*	HS25 / HSN25 **25 watt** (upper figure)	HS50 / HSN50 **50 watt** (upper figure)	HS100 / HSN100 **100 watt** (lower figure)	HS250 / HSN250 **250 watt** (lower figure)
Dim. A	0.719 ± .005 *(18.26 ± .127)*	1.562 ± .005 *(39.67 ± .127)*	2.75 ± .010 *(69.85 ± .254)*	3.875 ± .010 *(98.425 ± .254)*
Dim. B	0.781 ± .005 *(19.84 ± .127)*	0.844 ± .005 *(21.44 ± .127)*	2.25 ± .010 *(57.15 ± .254)*	2.5 ± .010 *(63.50 ± .254)*
Dim. C	1.062 ± .031 *(26.97 ± .787)*	1.968 ± .031 *(49.99 ± .787)*	3.50 ± .031 *(88.90 ± .787)*	4.5 ± .031 *(114.30 ± .787)*
Dim. D	1.938 ± .062 *(49.23 ± 1.57)*	2.781 ± .062 *(70.64 ± 1.57)*	5.478 ± .093 *(139.14 ± 2.36)*	7.0 ± .093 *(117.80 ± 2.36)*
Dim. E	0.550 ± .015 *(13.97 ± .381)*	.630 ± .015 *(16.00 ± .381)*	1.812 ± .031 *(46.02 ± .787)*	2.125 ± .031 *(53.98 ± .787)*
Dim. F	1.080 ± .015 *(27.43 ± .381)*	1.140 ± .015 *(28.96 ± .381)*	2.812 ± .031 *(71.42 ± .787)*	3.0 ± .031 *(76.20 ± .787)*
Dim. G	0.546 ± .015 *(13.87 ± .381)*	0.610 ± .015 *(15.49 ± .381)*	1.75 ± .031 *(44.45 ± .787)*	2.188 ± .031 *(55.58 ± .787)*
Dim. H	0.075 ± .010 *(1.90 ± .254)*	0.088 ± .010 *(2.24 ± .254)*	1.88 ± .031 *(4.78 ± .787)*	0.250 ± .031 *(6.35 ± .787)*
Dim. I	0.231 ± .010 *(5.87 ± .254)*	0.260 ± .010 *(6.60 ± .254)*	.770 ± .015 *(19.56 ± .381)*	0.955 ± .015 *(24.26 ± .381)*
Dim. J	0.172 ± .010 *(4.37 ± .254)*	0.196 ± .010 *(4.98 ± .254)*	.375 ± .031 *(9.52 ± .787)*	0.312 ± .031 *(7.92 ± .787)*
Dim. K	0.125 ± .005 *(3.18 ± .127)*	0.125 ± .005 *(3.18 ± .127)*	.188 ± .010 *(4.78 ± .254)*	0.188 ± .010 *(4.78 ± .254)*
Dim. L	0.115 ± .015 *(2.92 ± .381)*	0.107 ± .015 *(2.72 ± .381)*	.219 ± .031 *(5.56 ± .787)*	0.25 ± .031 *(6.35 ± .787)*
Dim. M	0.085 ± .005 *(2.16 ± .127)*	0.085 ± .005 *(2.16 ± .127)*	12 - 24 UNC - 2A THD	1/4 - 20 UNC - 2A THD
Dim. N	.438 ± .062 *(11.13 ± 1.57)*	0.438 ± .062 *(11.13 ± 1.57)*	.989 ± .031 *(25.12 ± .787)*	1.25 ± .031 *(31.75 ± .787)*