

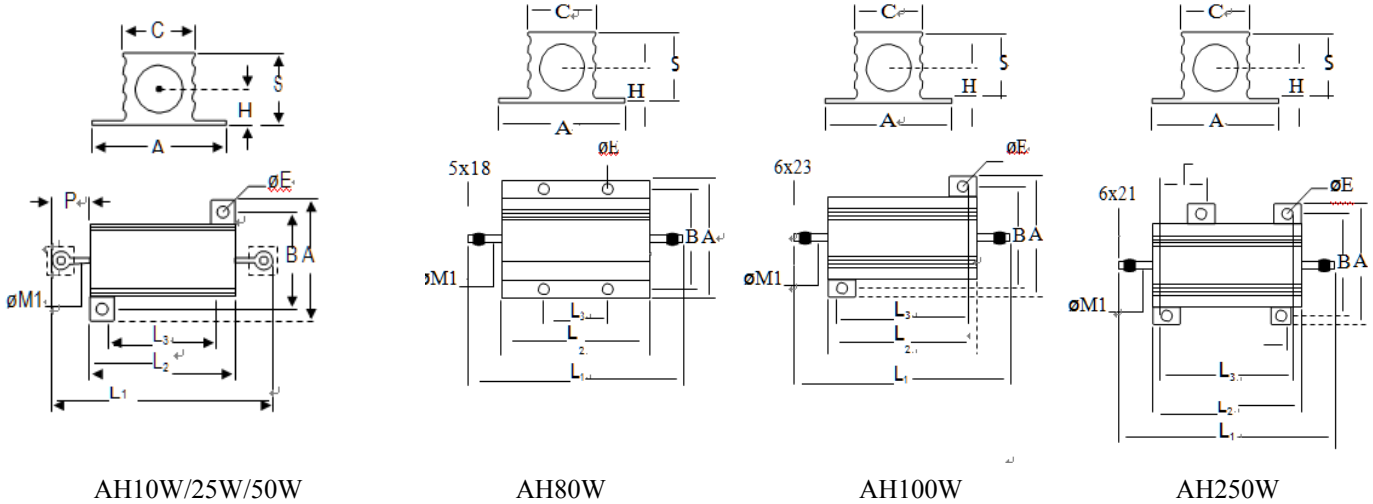
ALUMINUM HOUSED RESISTORS

AH SERIES

Feature

- Extremely stable capability.
- Super heat dissipation, instant overload capability.
- Instant overload capability
- Standard tolerance: $\pm 1\%$, $\pm 5\%$ in E-24 series

Dimension

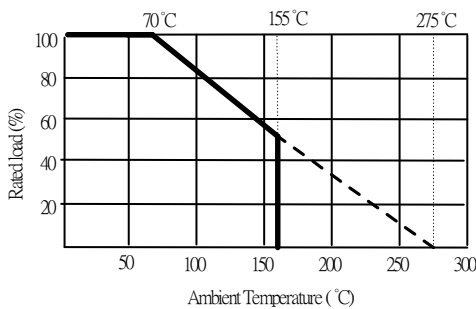


General Specification

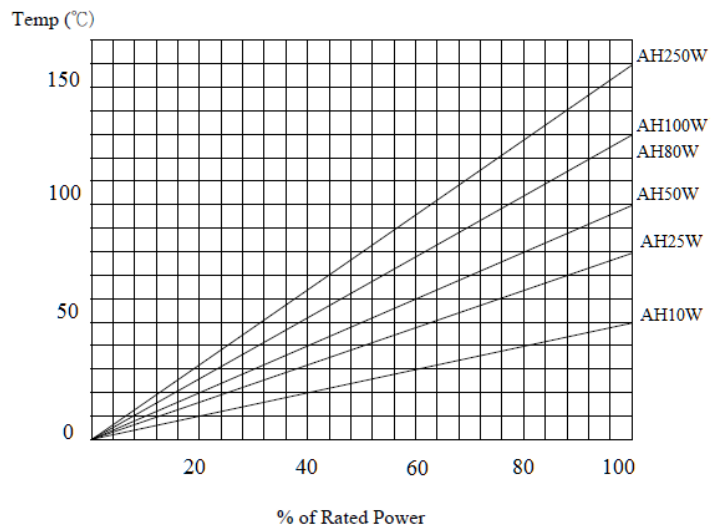
| TYPE | DIMENSION | | | | | | | | | | | POWER RATING | RESISTANCE RANGE |
|--------|------------|------------|------------|-----------|-----------|-----------|-------------|-----------|-------------|-----------|---------------|--------------|-----------------------------|
| | L1 ± 2 | L2 ± 1 | L3 ± 1 | A ± 1 | B ± 1 | C ± 1 | E ± 0.3 | S ± 1 | H ± 0.5 | P ± 2 | M1 ± 0.05 | | |
| AH10W | 32 | 19 | 14 | 20 | 15.5 | 10.5 | 2 | 10 | 5 | 6 | 2.0 | 10W | 0.1 Ω -50K Ω |
| AH25W | 47 | 27 | 18 | 27 | 19 | 15 | 3.2 | 15.5 | 7 | 10 | 2.0 | 25W | 0.1 Ω -50K Ω |
| AH50W | 70 | 50 | 39 | 29 | 21 | 15 | 3.2 | 15.5 | 7 | 10 | 2.0 | 50W | 0.1 Ω -100K Ω |
| AH80W | 102 | 66 | 35 | 47 | 37 | 28 | 4.5 | 25 | 12 | 5x18 | 5.0 | 80W | 0.1 Ω -3K Ω |
| AH100W | 135 | 89 | 69 | 70 | 48 | 46 | 5 | 44.5 | 19.5 | 6x23 | 6.0 | 100W | 0.1 Ω -3K Ω |
| AH250W | 175 | 114 | 98 | 77 | 64 | 53 | 5 | 55.5 | 25 | 6x21 | 6.0 | 250W | 0.1 Ω -3K Ω |

* Maximum Working Voltage determined by $E = \sqrt{P \cdot R}$, Maximum Overload Voltage equals to 2.5 x E

Derating Curve



Surface Temperature Rise (Mounted)



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Characteristics

| Item | Requirement | Test Method |
|---------------------------------|--|---|
| Short Time Overload | $\pm 2\% + 0.05 \Omega$ | JIS-C-5201-1 5.5 RCWV*2.5 or Max. overload voltage for 5 seconds |
| Insulation Resistance | $> 100M \Omega$ | JIS-C-5201-1 5.6 Apply 100VDC for 1 minute |
| Endurance | $\pm 5\% + 0.05 \Omega$ | JIS-C-5201-1 7.10 70 \pm 2 $^{\circ}$ C, Max. RCWV for 1000 hrs with 1.5 hrs "ON" and 0.5hrs "OFF" |
| Damp Heat with Load | $\pm 5\% + 0.05 \Omega$ | JIS-C-5201-1 7.9 40 \pm 2 $^{\circ}$ C, 90~95% R.H. RCWV for 1000 hrs with 1.5 hrs "ON" and 0.5hrs "OFF" |
| Solderability | 90% min. Coverage | JIS-C-5201-1 6.5 235 \pm 5 $^{\circ}$ C for 3 seconds |
| Dielectric Withstanding Voltage | 1000V | JIS-C-5201-1 5.7 Apply Max. Overload Voltage for 1 minute |
| Temperature Coefficient | $\pm 200PPM/^{\circ}C$ (50ppm, 100ppm is available) | Resistance value at room temperature and room Temperature+100 $^{\circ}$ C |
| Resistance To Solvent | No deterioration of coatings and markings | JIS-C-5201-1 6.9 Trichroethane for 1 min. with ultrasonic |
| Shelf Life | $\Delta R = \pm 0.1\%$ | 12 months at room temperature 25 \pm 3 $^{\circ}$ C, 80%RH Max. |

***Storage Temperature : 25 \pm 3 $^{\circ}$ C; Humidity < 80%RH**

Part Numbering

| | | | | |
|-----------|------------|----------|---|----------------------|
| AH | 50W | J | - | 100R |
| ↓ | ↓ | ↓ | | ↓ |
| Type | Power | Tol. | | Resistance |
| | 10W | F=±1% | | 0R1 = 0.1 Ω |
| | 25W | J=±5% | | 10R = 10 Ω |
| | 50W | | | 1K2R = 1.2K Ω |
| | 80W | | | |
| | 100W | | | |
| | 250W | | | |