# ALUMINUM POWER RESISTOR

## AH TYPE

### FEATURES

- High power rating, small size and ultra precision.
- Standard winding & non－inductive winding types.
- High stability, strong construction.

### MATERIALS

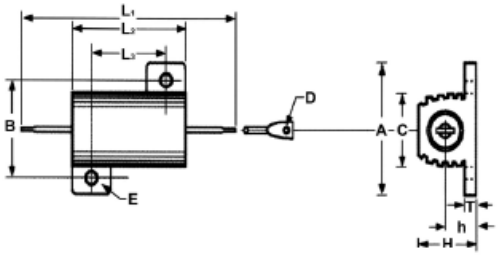
Encapsulant : Silicon
End caps : Stainless steel
Core : Ceramic steatite or alumina.
Housing : Aluminum with hard anodic coating.
Element : Copper－nickel alloy, nickel－chrome alloy or manganese copper.
Standard Terminals : 5W Lead Wire, 10～50W Tined terminals, 100～250W Threaded terminals.

| TYPE | WATTAGE RATING | RESISTANCE RANGE (Ω) | | MAX WORKING (V) | |
|---|---|---|---|---|---|
| | | AH Inductive | NAH Non－Inductive | AH | NAH |
| AH-5 | 5 | 0.05～3K | 0.1～1K | 120 | 70 |
| AH-10 | 10 | 0.02～6K | 0.03～2.3K | 245 | 180 |
| AH-25 | 25 | 0.012～15K | 0.02～5.5K | 500 | 300 |
| AH-50 | 50 | 0.01～40K | 0.02～12K | 300 | 600 |
| AH-100 | 100 | 0.4～50K | 0.12～25K | 1900 | 1340 |
| AH-250 | 250 | 0.6～80K | 0.15～40K | 2500 | 1750 |

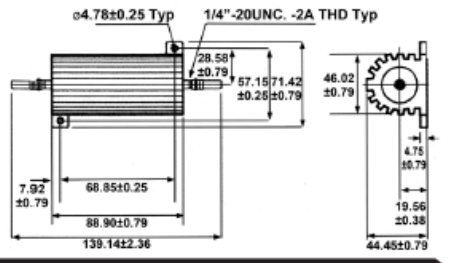
### CHARACTERISTICS

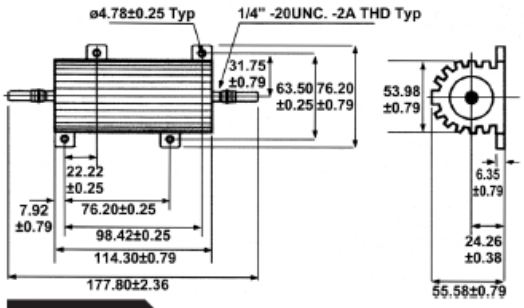
| TEST | TEST METHOD | LIMITS |
|---|---|---|
| Short-Time Over Load | 5 X wattage rating－5 sec. | Δ R±(0.5%+0.05Ω) MAX |
| Moisture Resistance | Temp. 40℃ moisture 95% DC 100V 500hours | Δ R±(0.5%+0.05Ω) MAX |
| Moisture Load Life | Temp. 40℃ moisture 95% 1/10 X wattage rating (1.5Hrs ON－0.5Hr OFF)－Repeat 1000hours | Δ R±(0.5%+0.05Ω) MAX |
| Load Life | Load Rating (chass is mounted) (1.5Hrs ON－0.5Hr OFF)－Repeat 1000hours | Δ R±(1.5%+0.05Ω) MAX |
| Vibration | 10c/s～50c/s～10c/s (1min)－2hours each of paralleled and right angle. | Δ R±(0.2%+0.05Ω) MAX |
| Heat Resistance | 275℃ 2hours | Δ R±(0.5%+0.05Ω) MAX |
| Dielectric Strength | AH－5, AH－10, AH－25 1000V<br>AH－50 1500V<br>AH－100, AH－250 2500V | Δ R±(0.2%+0.05Ω) MAX |
| Insulation Resistance | Under the same test condition of Dielectric Strength, Load DC 500V and measure the Insulation R | 1000M Ω min |
| Terminal Strength | (1) Pull Test (30 sec Min.)<br>AH－5 1kg, AH－10 2.3kg, AH－25, AH－50 4.5kg<br>(2) Torque Test (5～15 sec)<br>AH－100 27kg/cm, AH－250 36kg/cm | Δ R±(0.2%+0.05Ω) MAX |

### DIMENSIONS

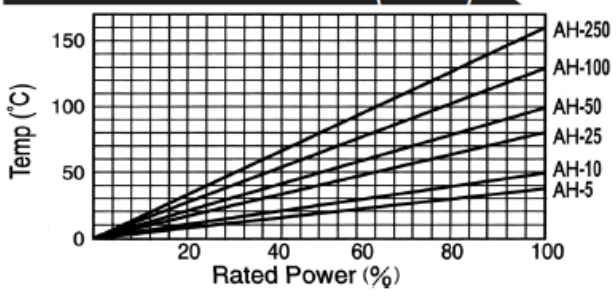



| TYPE | DIMENSIONS(mm) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | L1 ±0.25 | L2 ±1 | L3 ±0.8 | A ±1 | B ±0.8 | C ±1 | D ±0.1 | E ±0.3 | h ±1 | h ±1 | T ±0.2 |
| AH-5 NAH-5 | 28.6 | 15.3 | 11.3 | 16.5 | 12.4 | 8.5 | 1.3 | 2.4 | 8.2 | 4 | 1.6 |
| AH-10 NAH-10 | 35 | 19 | 14.3 | 20.4 | 15.9 | 11 | 2.2 | 2.4 | 10 | 5 | 2 |
| AH-25 NAH-25 | 49 | 27 | 18.3 | 27.2 | 19.8 | 14 | 2.2 | 3.2 | 14 | 6.5 | 2 |
| AH-50 NAH-50 | 70 | 50 | 39.7 | 29.2 | 21.5 | 16 | 2.2 | 3.2－4.2 | 16 | 7 | 2 |




### SURFACE TEMPERATURE VS. POWER LOAD (on chassis)




### RATING