

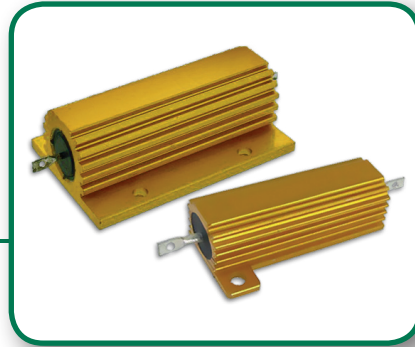
# AH SERIES

## ALUMINUM HOUSED WIRE WOUND RESISTORS

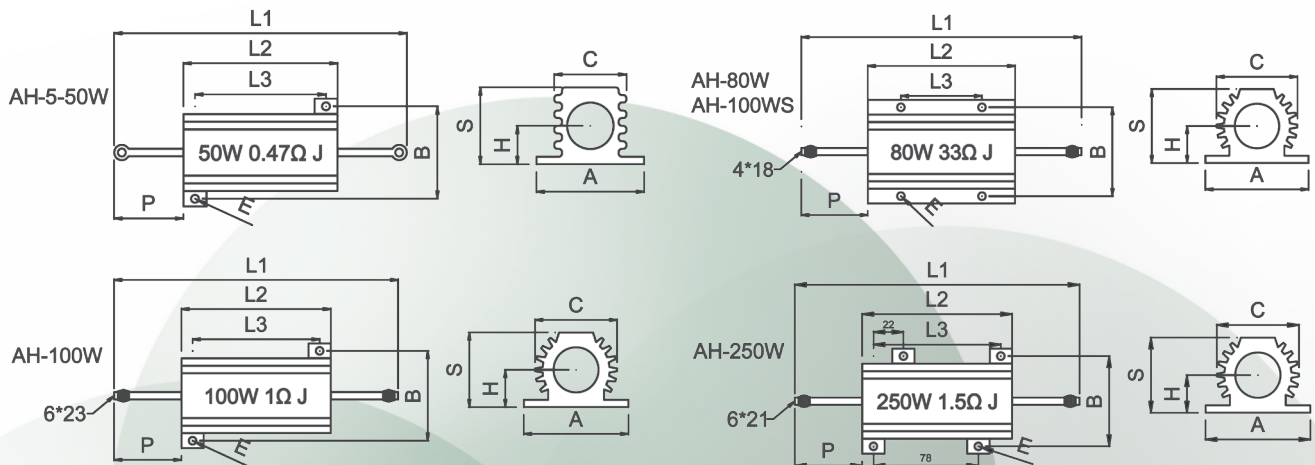
### RoHS

#### FEATURES

- High power rating, small size
- Standard winding & non-inductive winding types
- High stability
- 25W e 50W moulded construction



#### PHYSICAL CONFIGURATION



#### DIMENSIONAL TABLE

| TYPE     | DIMENSIONS (mm) |      |      |      |      |      |       |      |       |      | RESISTANCE RANGE |
|----------|-----------------|------|------|------|------|------|-------|------|-------|------|------------------|
|          | L1±2            | L2±1 | L3±1 | A±1  | B±1  | C±1  | E±0.3 | S±1  | H±0.5 | P±2  |                  |
| AH-5W    | 25              | 15   | 10   | 16.5 | 12.5 | 8.5  | 2     | 8    | 4     | 5    | R10~5K           |
| AH-10W   | 32              | 19   | 14   | 20   | 15.5 | 10.5 | 2     | 10   | 5     | 6    | R10~10K          |
| AH-25W   | 47              | 27   | 18   | 27   | 19   | 15   | 3.2   | 15.5 | 7     | 10   | R051~25K         |
| AH-50W   | 70              | 50   | 39   | 29   | 21   | 15   | 3.2   | 15.5 | 7     | 10   | R010~100K        |
| AH-80W   | 102             | 66   | 35   | 47   | 37   | 28   | 4.5   | 25   | 12    | 5*18 | R10~20K          |
| AH-100WS | 102             | 66   | 35   | 47   | 37   | 28   | 4.5   | 25   | 12    | 5*18 | R10~20K          |
| AH-100W  | 135             | 89   | 69   | 70   | 58   | 46   | 5     | 44.5 | 19.5  | 6*23 | R10~20K          |
| AH-250W  | 155             | 114  | 98   | 77   | 64   | 53   | 5     | 55.5 | 25    | 6*21 | R10~10K          |

Tolerance: 5% available 1% - 0.5% (depend ohmic range)  
 TCR: ±200ppm max  
 Contact the factory for ohmic values out of the range



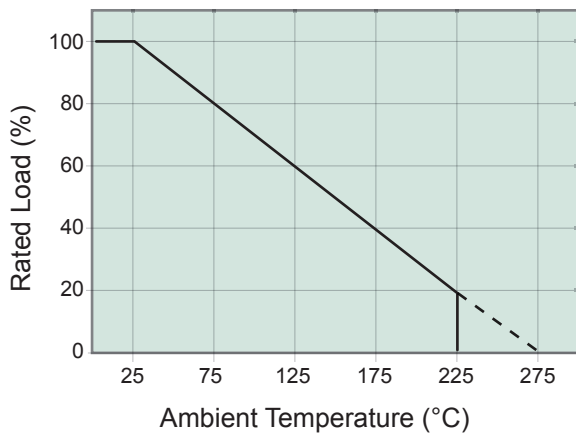
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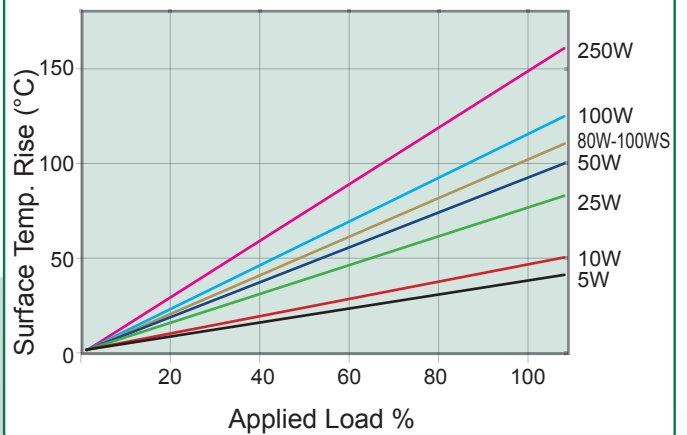
RoHS

## SURFACE TEMPERATURE VERSUS POWER LOAD (ON CHASSIS)

POWER GRAPH



HOT-SPOT TEMPERATURE



HEATSINK DIMENSIONS

| Type | Area (cm <sup>2</sup> ) | Thickness (mm) |
|------|-------------------------|----------------|
| 5    | 420                     | 1              |
| 10   | 420                     | 1              |
| 25   | 560                     | 1              |
| 50   | 980                     | 1,5            |
| 80   | 1000                    | 3,5            |
| 100S | 1000                    | 3,5            |
| 100  | 1300                    | 3,5            |
| 250  | 4200                    | 3,5            |



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## ALUMINUM HOUSED WIRE WOUND RESISTORS

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#### ELECTRICAL SPECIFICATIONS AND PERFORMANCE

| Parameters            | Test Conditions                                                                                                                  | Specifications                                 |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Short time Over Load  | 5X wattage rating-5sec                                                                                                           | $\Delta R \pm (0.5\% + 0.05\Omega) \text{MAX}$ |
| Moisture Resistance   | Temp 40°C moisture 95% DC100V 500HR                                                                                              | $\Delta R \pm (0.5\% + 0.05\Omega) \text{MAX}$ |
| Moisture Load Life    | Temp 40°C moisture 95% 1/10X Wattage rating (1.5Hr ON-0.5Hr OFF)-Repeat 1000Hr                                                   | $\Delta R \pm (0.5\% + 0.05\Omega) \text{MAX}$ |
| Load Life             | Load Rating(chass is mounted)(1.5Hr ON 0.5Hr OFF)-Repeat 1000Hr                                                                  | $\Delta R \pm (1.5\% + 0.05\Omega) \text{MAX}$ |
| Vibration             | 10c/s~50c/s~10c/s(1min)2Hr each of paralleled and right angle                                                                    | $\Delta R \pm (0.2\% + 0.05\Omega) \text{MAX}$ |
| Heat Resistance       | 275°C 2Hr                                                                                                                        | $\Delta R \pm (0.5\% + 0.05\Omega) \text{MAX}$ |
| Dielectric Strength   | AH-5, AH-10 1000V / AH-25, AH-50 3000V<br>AH-80, AH-100, AH-100S, AH-250 2000V - for 60 sec.                                     | $\Delta R \pm (0.2\% + 0.05\Omega) \text{MAX}$ |
| Insulation Resistance | Under the same test condition of Dielectric Strength, Load DC500v and measure the insulation R.                                  | 1000M $\Omega$ min                             |
| Terminal Strength     | (1) Pull Test (30 sec Min) AH-5 1kg, AH-10 2.3kg, AH-25, AH-50 4.5kg<br>(2) Torque Test (5~15sec) AH-100 27kg-cm, AH 250 36Kg-cm | $\Delta R \pm (0.2\% + 0.05\Omega) \text{MAX}$ |

#### PACKING

| AH    | BOX (pcs) | CARTON (pcs) |
|-------|-----------|--------------|
| 5W    | 400       | 2400         |
| 10W   | 300       | 1800         |
| 25W   | 200       | 600          |
| 50W   | 200       | 600          |
| 80W   | 8         | 48           |
| 100W  | 10        | 60           |
| 100WS | 6         | 36           |
| 250W  | 6         | 36           |

#### EXAMPLE OF ORDERING CODE

| AH                 | 50W          | 3K                 | J             |
|--------------------|--------------|--------------------|---------------|
| Type               | Power rating | Resistance         | Tolerance     |
| AH Aluminum Housed | 5W 10W       | 0R22 0.22 $\Omega$ | J $\pm 5\%$   |
|                    | 25W 50W      | 1R 1 $\Omega$      | F $\pm 1\%$   |
|                    | 80W 100W     | 10R 10 $\Omega$    | D $\pm 0.5\%$ |
|                    | 250W         | 33R 33 $\Omega$    |               |
|                    |              | 3K 3.300 $\Omega$  |               |

