

Power Resistor Trapezoidal Aluminum Housed

AHT Series

MERITEK

FEATURE

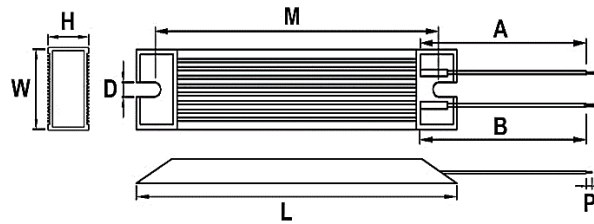
- High Load, Heat-Sink Performance, Non-Flame
- Stable Performance of High Voltage, Pulsing Load
- Ingress Protection: IP53
- Application: Entertainment System, Power Supply, VFD Control, Wind-Power System



ELECTRICAL CHARACTERISTICS

Rated Power at 70°C (W)	Resistance Range (Ω)	Tolerance (%)	Max Working Voltage (V)	Max Overload Voltage (V)	Insulation Voltage (V)	TCR (PPM/°C)	Operating Temperature Range (°C)
<100	0.1~500K	F: ±1% G: ±2% J: ±5% K: ±10%	250	350	1500	±100 ±250 ±350 ±500	-55~+275
100~150	0.1~100K		350	550	2000		
200~300	0.1~10K		500	1000	3000		
>300	0.1~10K		750	1200	3000		

DIMENSIONS



Unit: mm

Power Rating	L ±1.0	W ±0.5	H ±0.5	M ±1.0	D ±0.5	A/B ±5.0	P ±3.0
40W	90	40	15	75	5.5	200	5
60W	115	40	20	98	5.5	200	5
80W	140	40	20	123	5.5	200	5
100W	165	40	20	148	5.5	300	5
120W	190	40	20	173	5.5	300	5
150W	215	40	20	198	5.5	300	5
200W	165	60	30	150	5.5	300	5
300W	215	60	30	200	5.5	300	5
400W	265	60	30	250	5.5	300	5
500W	335	60	30	320	5.5	300	5

PART NUMBERING SYSTEM

AHT 100W 2K6J K4
(1) (2) (3) (4)

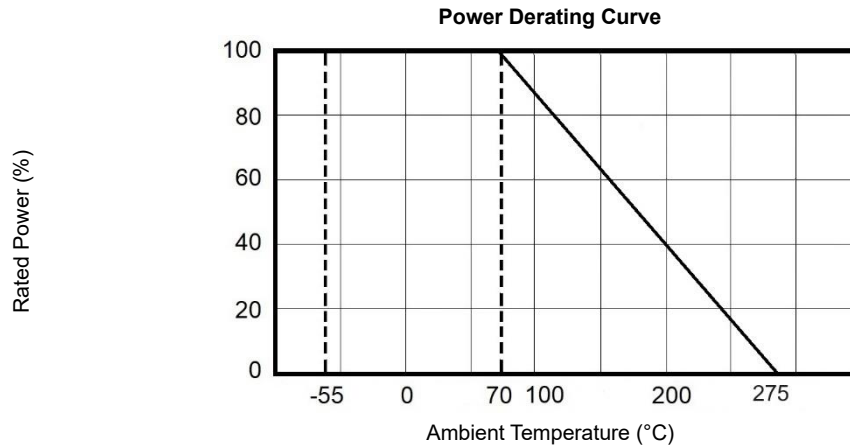
No.	Item	Code	Description
(1)	Meritek Series	AHT	Power Resistor Trapezoidal Aluminum Housed
(2)	Power Rating	100W	100W Power Rating at 70°C
(3)	Resistance	2K6J	2.6KΩ ±5%(J) F: ±1% , G: ±2%, J: ±5% ,K: ±10%
(4)	TCR	K4	±400PPM/°C K1: ±100 (PPM/°C), K25: ±250 (PPM/°C)

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CHARACTERISTIC CURVES



RELIABILITY TEST CONDITION AND REQUIREMENT – Refer to IEC 60115-1

Test	Condition	Requirement
Short Time Overload	$\sqrt{10 * W * R}$ or Rated Voltage whichever is smaller for 5 seconds. Then removing the voltage and place the resistors to the normal condition for 30 minutes	$\pm(2.0\% + 0.05\Omega)$
Temperature Coefficient Resistance (T.C.R.)	$T.C (ppm/^{\circ}C) = [(R2 - R1) / R1] \times [1 / (T2 - T1)] \times 10^6$	$\pm 500ppm/^{\circ}C$
Voltage Proof	Applying Rated Voltage, $I \leq 2mA$ for 60 seconds	$\pm(1.0\% + 0.05\Omega)$
Insulation Resistance	In V-Block for DC500V megger	$>100M\Omega$
Endurance	70°C at RCWV for 1000 hrs, (1.5 hrs on, 0.5 hrs off)	$\pm(5.0\% + 0.05\Omega)$
Temperature Cycling	25±3°C /15min → 125±3°C /15min → 25±3°C /15min → -25±3°C /15min (1000 Hours)	$\pm(1.0\% + 0.05\Omega)$
Resistance to Soldering Heat	350±5°C for 3±0.5 Sec. Then remove the resistors and leaving them at room temp for one hour.	$\pm(1.0\% + 0.05\Omega)$
Solderability	245±5°C for 5sec.	95% Min Coverage
Terminal Strength	Direct load for 10 sec in the direction of the terminal leads.	Tensile: $\geq 17.7N$

Notes:

- Operating Temperature: -55°C ~ +275°C
- Rated Continuous Working Voltage (RCWV) = $\sqrt{Power.Rating * Resistance.Value}$