

Aluminum Housed Resistors



RGA's high power aluminum housed resistors use centerless ground ceramic cores for uniform heat distribution. Molded in a special high temperature material and mounted in an extruded aluminum finned housing, these designs provide maximum power dissipation and reliability. They have tinned copperweld leads for solderability and meet or exceed both MIL-R- 18546 (including "N" characteristic) and MIL-R-39009.

Environmental Specifications	
TEST	MIL-R-18546
Load Life	$\pm(1\%+.05\Omega)\Delta R$
Moisture Resistance	$\pm(1\%+.05\Omega)\Delta R$
Resistance Temp	$\pm 50\text{ppm to } 2000\Omega$
Characteristic	$\pm 30\text{ppm over } 2000\Omega$
Thermal Shock	$\pm(.5\%+.05\Omega)\Delta R$
Momentary Overload	$\pm(.5\%+.05\Omega)\Delta R$
Dielectric	$\pm(.2\%+.05\Omega)\Delta R$
High Temp Storage	$\pm(.5\%+.05\Omega)\Delta R$
Shock	$\pm(.2\%+.05\Omega)\Delta R$
Vibration	$\pm(.2\%+.05\Omega)\Delta R$
Tolerance	$\pm 0.1\% \pm 20\%$

Part No.	Military	Power Rating		Resistance		Working Voltage
		RGA	Military	Min	Max	
AHTM5	RE-60	7.5 W	5 W	0.01 Ω	22K Ω	160
AHTM10	RE-65	12.5 W	10 W	0.01 Ω	47K Ω	265
AHTM25	RE-70	25 W	20 W	0.01 Ω	90K Ω	550
AHTM50	RE-75	50 W	30 W	0.01 Ω	250k Ω	1250

*Higher wattages available upon request.

Temperature Coefficient of Resistance:

1 to 10: $\pm 50\text{ppm}/^\circ\text{C}$; > 10: $\pm 20\text{ppm}/^\circ\text{C}$

Dielectric Strength: AHTM5, AHTM10, AHTM25 >1000VAC, AHTM50: >2000 VAC

Operating Temperature Range: -55°C to $+275^\circ\text{C}$.

Derating is required for reduced chassis mounting area and for high ambient temperatures (see chart).

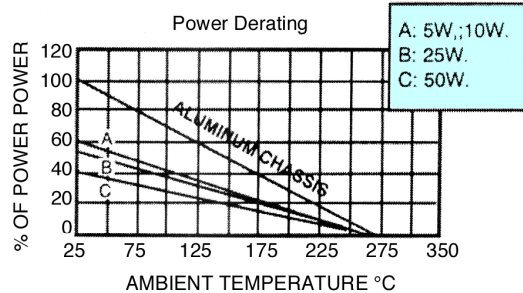
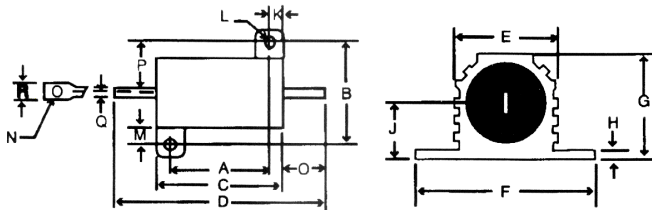
Power Rating based on

- full power operation @ 25°C
- maximum hotspot 275°C
- 1% maximum R in 1000 hr load life
- mounting on a proper heat sink

Heat Sink Requirements

AHTM5, AHTM10: 4"x6"x2"x.040"

AHTM25, AHTM50: 5"x7"x2"x.040"



Part No	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R
	$\pm .005"$	$\pm .005"$	$\pm .031"$	$\pm .062"$	$\pm .015"$	$\pm .015"$	$\pm .015"$	$\pm .010"$	$\pm .010"$	$\pm .010"$	$\pm .005"$	$\pm .015"$	$\pm .005"$	$\pm .062"$	$\pm .031"$	AWG	$\pm .032"$
AHTM5	.444	.490	.600	1.125	.334	.646	.320	.065	.140	.078	.093	.078	.050	.266	.245	16	.085
AHTM10	.562	.625	.750	1.375	.430	.800	.400	.075	.190	.093	.093	.102	.086	.312	.312	12	.140
AHTM25	.719	.781	1.062	1.938	.530	1.080	.560	.085	.260	.172	.125	.125	.086	.438	.391	12	.140
AHTM50	1.563	.844	1.968	2.781	.615	1.140	.615	.085	.300	.196	.125	.125	.086	.438	.422	12	.140

Part Numbering System

