Metal Clad Wire Wound Fixed Resistors

RHA-Type (RoHS-compliant products)

■ Introduction

This resistor is manufactured in accordance with MIL-R-18546 standard. It contains a wire wound resistive element in an aluminum case, fully molded with a special thermosetting resin. The molded construction ensures its outstanding performance in the face of environmental changes.

■ Features

1. Small-sized, high precision····Direct heat conduction to mounting chassis ensures smaller size and higher performance compared to other resistors with the same power rating.
2. Excellent temperature characteristics····Carefully selected resistors are manufactured with extremely small temperature coefficient.
3. High weather resistance····high stability against changes in environmental conditions (heat, moisture, solvents, chemicals, etc.).

■ Type descriptions

RHA50	G	120Ω	F
Style	Spec. code	Nominal resistance	Resistance tolerance
RHA10～RHA250	G: wire wound N: non-inductive	Ω or kΩ indication (*) (E-24 and 96 series)	F:±1% J:±5%

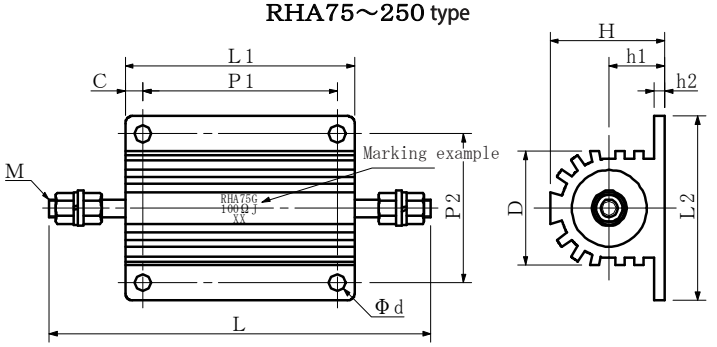
(Note) Resistance tolerance class F(±1%): E-24 and E96 series
Resistance tolerance class J(±5%): E-24 series.

■ Characteristic

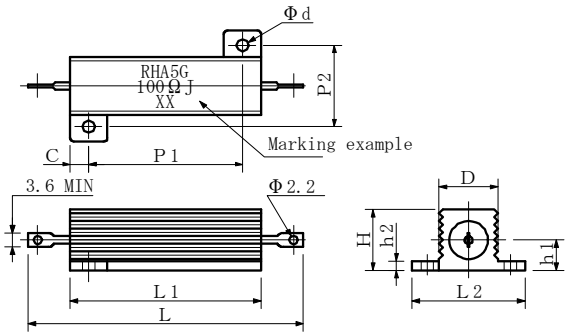
Test items	Test method	Specified value
Resistance temperature charact	-55°C~125°C~200°C	<1Ω±100ppm/℃ ≧1Ω±50ppm/℃
Short-time overload	5 x rated power for 5 sec.	±(0.5%+0.05Ω)
Insulation resistance	DC 500V megger	100MΩ or higher
Withstanding voltage	RHA10.25-1KV,RHA50-2KV >RHA75～250-4.5KV	No breakdown
Terminal strength	<RHA50 10 - 40N >RHA75 27.7 - 39.6kg-cm	±(0.2%+0.05Ω)
Vibration	10~55 - 10Hz for 1 min 1.5mm in 2 directions for 4 hrs. total	±(0.2%+0.05Ω)
Moisture load life	40°C .90-95% 1/10 x rated power for 1000 hrs.	±(0.5%+0.05Ω)
Moisture resistance	40℃ .95% DC100v 500 hrs.	±(0.5%+0.05Ω)
Load life	Rated power for 1000 hrs. 1.5 hrs. ON – 0.5 hrs. OFF	<RHA50±(1%+0.05Ω) >RHA75±(3%+0.05Ω)
Heat resistance	275°C for 2 hrs.	±(0.5%+0.05Ω)
Thermal shock	Rated power after 30 min. -55°C for 15 min.	±(0.5%+0.05Ω)

■ Dimensions & Resistance range

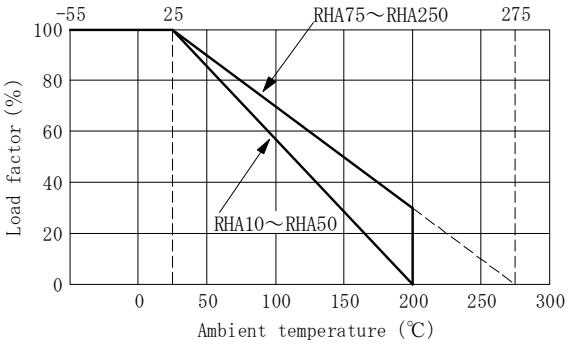
RHA75～250 type



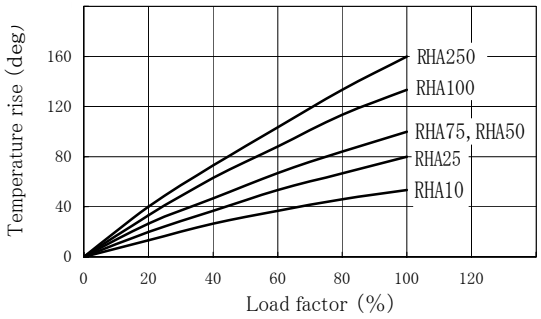
RHA10～50 type



■ Load derating curve



■ Temperature rise curve (reference)



Test Chassis Dimensions

RHA250 : 305x305x3t(PLATE)Al　RHA50 : 178x127x51x1t(BOX)Al
RHA100 : 305x305x3t(PLATE)Al　RHA25 : 178x127x51x1t(BOX)Al
RHA75 : 305x305x3t(PLATE)Al　RHA10 : 152x102x51x1t(BOX)Al

Style	Power rating (W)		Max. working (V)		Resist. Range (Ω)(*1)		Dimensions (mm)											Weight (g)
	Chassis mounting	Heat sinkable	General	Non-Inductive	General	Non-Inductive	L ±2	L1 ±1	L2 ±0.8	P1 ±0.8	P2 ±0.8	D ±1	H ±0.8	d ±0.3	C ±0.8	h1 ±1	h2 ±0.5	M	
RHA10	10	6	245	180	0.020～ 6.0K	0.03～ 2.3K	35.0	19.0	20.0	14.3	15.9	10.8	10.0	2.4	2.4	5.3	2.4	—	7
RHA25	20	8	500	300	0.012～15.0K	0.02～ 5.5K	49.0	27.0	28.0	18.3	19.8	13.5	14.0	3.2	4.4	7.1	2.4	—	15
RHA50	30	10	1300	600	0.010～40.0K	0.02～12.0K	71.0	49.2	29.2	39.7	21.4	15.1	16.0	3.2	4.8	8.0	2.5	—	33
RHA75	75	30	1500	1050	0.200～20.0K	0.07～10.0K	110.0	66.0	52.0	56.0	42.0	32.0	33.0	4.8	5.0	16.0	3.2	M5	200
RHA100	120	50	1900	1340	0.400～50.0K	0.12～25.0K	140.0	88.9	71.4	69.9	57.2	46.0	44.5	4.8	9.5	19.5	4.8	M6	450
RHA250	200	75	2500	1750	0.600～80.0K	0.10～40.0K	177.8	114.3	76.2	98.4	63.5	54.0	55.6	4.8	7.9	25.4	6.4	M6	800

(*1)The resistance tolerance class F(±1%) is supported with 0.1Ω and above for RHA10~50, and 1Ω and above for RHA75~250.