

Precision Type Metal Clad Resistors

- Ideal for current sensing applications.
- Small size, high power and ultra precise.
- Ultra precise resistors in low resistance value are available.
- Low temperature coefficient.
- Dielectric and insulation is strongly resistant to moisture and solvents.



GENERAL SPECIFICATIONS

Model	Power Rating[W]		Terminal	Resistance Range[Ω]							Maximum Resistance	Maximum Current Running [A]	Max. Working [V]	Dielectric Withstanding Voltage
	*Chassis Mounted	In Free Air		Resistance Tolerance Minimum Resistance										
				±1% (F)	±0.5% (D)	±0.1% (B)	±0.05% (A)	±0.02% (Q)	±0.01% (T)					
RH-5E	2	1	2	0.02	0.1	1	2	20	30	150K	10	300	500V	
RH-10E	4	2	2	0.02	0.1	0.3	1	10	20	300K	14	300	1000V	
RH-10E4	4	2	4	0.02	0.02	0.05	0.1	0.2	20	300K	14	300		
RH-25E	6	3	2	0.02	0.1	0.5	1	10	20	600K	17	400		
RH-25E4	6	3	4	0.01	0.01	0.03	0.05	0.1	10	600K	24	400		
RH-50E	10	4	2	0.02	0.1	0.5	1	10	20	3M	22	1,300	2000V	
RH-50E4	10	4	4	0.01	0.01	0.02	0.05	0.1	10	3M	25	1,300		
RH-50M	10	4	2	0.01	0.05	0.3	0.5	-	-	2M	31	1,300		
RH-50ML	10	4	4	0.001	0.005	0.01	0.02	0.05	5	2M	100	1,300		
RH-75M	20	8	2	0.01	0.05	0.3	0.5	10	20	150K	44	1,300	4500V	
RH-75ML	20	8	4	0.001	0.001	0.001	0.005	0.01	1	150K	140	1,300		
RH-100M	30	12	2	0.01	0.05	0.1	0.3	10	20	350K	50	1,400		
RH-100ML	30	12	4	0.001	0.001	0.001	0.005	0.01	1	350K	170	1,400		
RH-100M4	30	12	4	0.001	0.001	0.001	0.005	0.01	-	0.5	170	1,400		
RH-250M	50	20	2	0.01	0.05	0.1	0.3	10	20	600K	70	1,700		
RH-250ML	50	20	4	0.001	0.001	0.001	0.005	0.01	1	600K	200	1,700		
RH-250M4	50	20	4	0.001	0.001	0.001	0.005	0.01	-	0.5	200	1,700		

Terminal	M	ML	E	E4	M4
Configuration					

CHARACTERISTICS

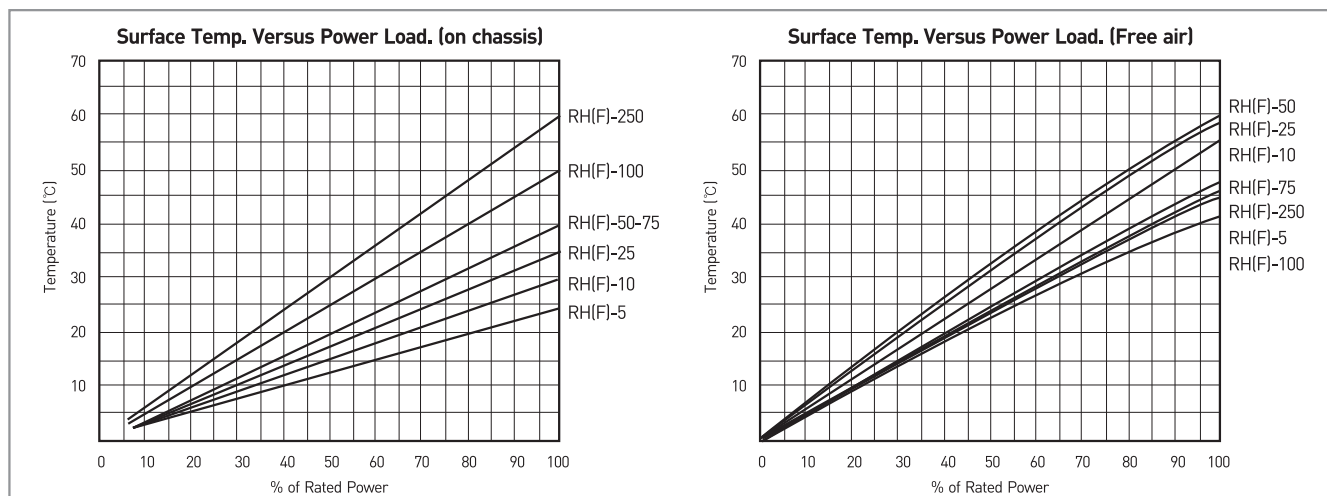
Values in [] mean change in Ω after test

Operation Temperature Range	-55°C ~ +125°C	
Insulation Resistance	Over 1000M Ω	DC500V
Heat Resistance	±1.0%	150°C, 2hours
Vibration	±0.1%	10Hz-55Hz-10Hz(1minute) 2hours each of paralleled and right angle
Load Life	±0.2%	90minutes on, 30minutes off, 2000hours
Short Time Overload	±0.1%	2 x Power rating, 5seconds
Dielectric Withstanding Voltage	±0.02%	1 minute

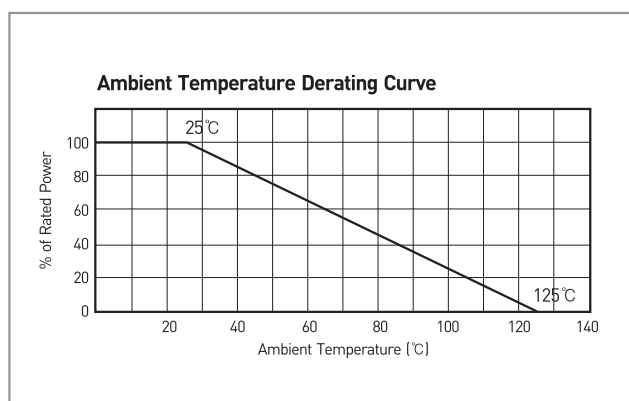
TCR

Resistance[Ω]	1≤R	0.1≤R < 1	0.05≤R < 0.1	0.01≤R < 0.05	0.005≤R < 0.01	0.001≤R < 0.005
TCR (ppm/°C)	±30	±50	±50	±100	-	-
2 Terminal Type	±30	±30	±30	±50	±50	±50
4 Terminal Type	±30	±30	±30	±50	±50	±50

SURFACE TEMPERATURE INCREASE VERSUS POWER LOAD



DERATING CURVE



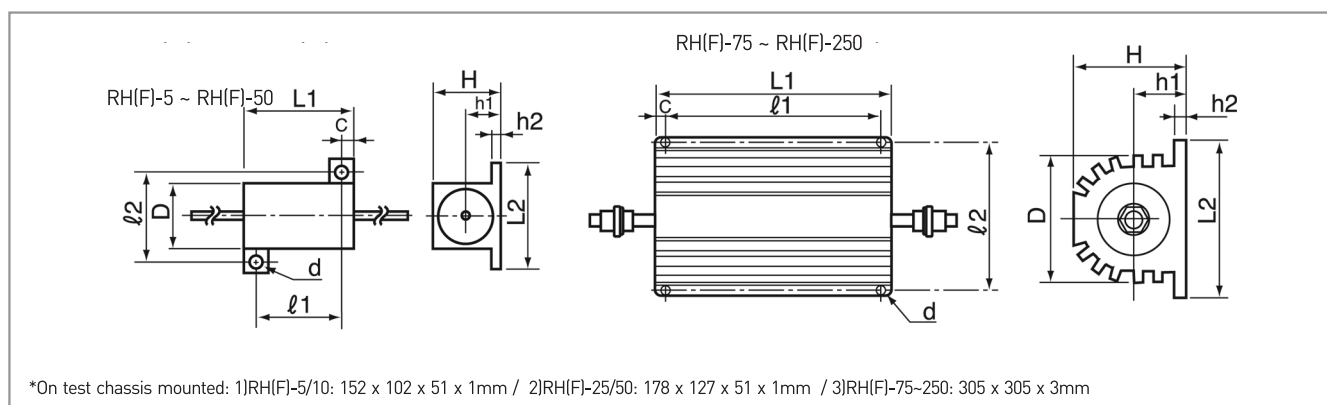
ORDERING PROCEDURE EXAMPLE

Ordering Example	Model	Tolerance	Resistance	
RH100M4 BOR5	RH100M4	B($\pm 0.1\%$)	0.05 Ω	Inductive
RHF100M4 AOR5	RHF100M4	A($\pm 0.05\%$)	0.05 Ω	Non Inductive

Note :

1. This RH/RHF series is designed for chassis mounting style and noted the following.
- (1) In order to mount the resistor tightly to chassis, mounting surface should be completely smooth.
- (2) On the mounting surface, -a product like heat grease should be liberally applied.
- (3) For RH(F)50M, RH(F)70, RH(F)250, use solderless terminal for the terminal and cable connection and fasten the nut using the following torques.
RH(F)50M : 0.6N·m MAX, RH(F)75 : 1.18~1.57N·m, RH(F)100, RH(F)250 : 1.96~2.35N·m (M4 terminal : 0.60~0.75N·m)

DIMENSIONS[mm]



*On test chassis mounted: 1)RH(F)-5/10: 152 x 102 x 51 x 1mm / 2)RH(F)-25/50: 178 x 127 x 51 x 1mm / 3)RH(F)-75-250: 305 x 305 x 3mm

Model	L1 ± 1	L2 ± 0.8	l1 ± 0.8	l2 ± 0.8	D ± 1	H ± 0.8	d ± 0.3	c ± 0.8	h1 ± 1	h2 ± 0.5	a ± 2	b	P ± 1
RH-5E	15.3	16.4	11.3	12.5	8.5	8	2.3	2	4	1.6	-	-	-
RH-10	19	20	14.3	15.9	10.8	10	2.4	2.4	5.3	2.4	-	-	5
RH-25	27	28	18.3	19.8	13.5	14	3.2	4.4	7.1	2.4	-	-	6
RH-50	49.2	29.2	39.7	21.4	15.1	16	3.2	4.8	8	2.5	13	M4	7
RH-75	66	52	56	42	32	33	4.8	5	16	3.2	22	M5	-
RH-100	88.9	71.4	69.9	57.2	46	44.5	4.8	9.5	19.5	4.8	25	M6	-
RH-250	114.3	76.2	98.4	63.5	54	55.6	4.8	7.9	25.4	6.4	31	M6	-