

Metal Clad Wire Wound Resistors



- Aluminum housed
- Standard(RH) or non-inductive(RH-N) winding
- Cement molding
- 100% RoHS compliant
- Complete welded construction
- Mounts on chassis to utilize heat sink effect
- High stability at conventional power ratings

GENERAL SPECIFICATIONS

Model	Element Type	Power Rating		Resistance Range		Temperature Coefficient					Resistance Tolerance (%)	Minimum Ohmic Value
						Measuring Temp; -55°C, 25°C, 250°C						
		With Heat Sink	In Free Air	Inductive	Non-Inductive	-15°C, 25°C, 105°C	±200 [ppm/°C]	±200 [ppm/°C]	±100 [ppm/°C]	±50 [ppm/°C]		
RH 25C	Wire Wound	20W	8W	0.27Ω~25KΩ	0.1Ω~10KΩ	-	-	0.1Ω~0.976Ω	1Ω~19.6Ω	20Ω~	B [±0.1] C [±0.25] D [±0.5] F [±1] G [±2] J [±5]	1Ω~0.4Ω~0.2Ω~0.1Ω~0.05Ω~0.02Ω~
RH 50C	Wire Wound	*30W *50W	10W	0.68Ω~50KΩ	0.2Ω~20KΩ	-	-	0.2Ω~0.976Ω	1Ω~19.6Ω	20Ω~	F [±1] G [±2] J [±5]	1Ω~0.4Ω~0.2Ω~0.1Ω~0.05Ω~0.02Ω~
FRH 25C	Thick Film	15W	5W	-	1KΩ~2MΩ	1KΩ~2MΩ	-	-	-	-	F [±1] G [±2] J [±5] K [±10]	1KΩ~
FRH 50C	Thick Film	25W	8W	-	1KΩ~2MΩ	1KΩ~2MΩ	-	-	-	-	F [±1] G [±2] J [±5] K [±10]	1KΩ~

*30W on heat sink(178×127×51×1mm), 50W on heat sink(305×305×2mm)

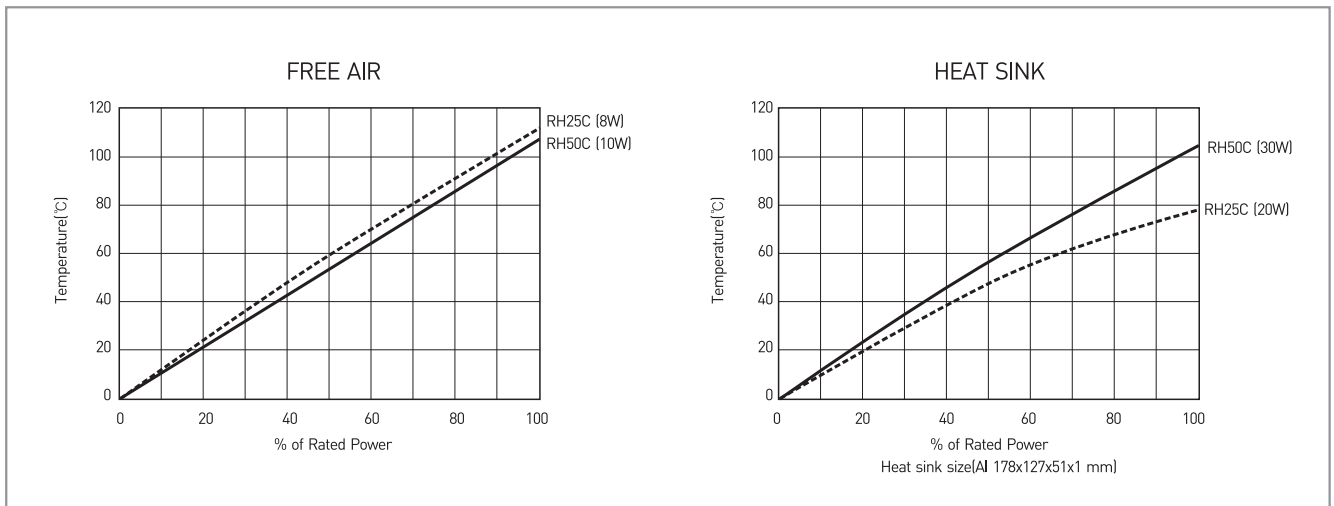
* Option : ±20ppm/°C is available

CHARACTERISTICS

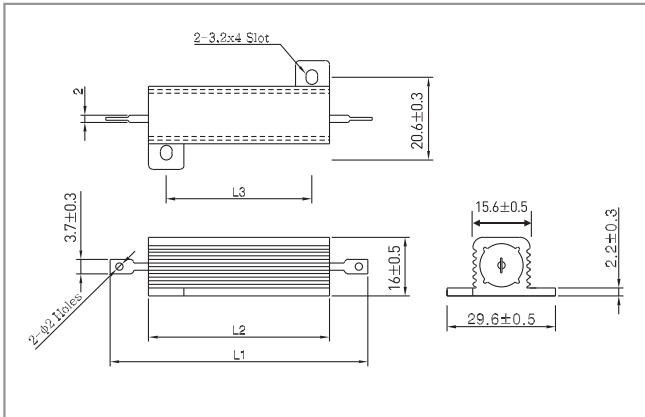
Values in [] mean change in Ω after test

Test	RH	FRH	Condition
Temperature Range			-55°C ~ +250°C
Insulation Resistance			20MΩ minimum
Dielectric Withstanding Voltage	±[0.2%+0.05Ω]	±[0.5%+0.05Ω]	Standard: AC 1500V for 1minute; Max. leakage current: 2mA Option: AC2000V for 1minute
Short Time Overload	±[0.5%+0.05Ω]	±[1%+0.05Ω]	FRH: 2×Power rating 5 seconds, RH: 5×Power rating 5 seconds
Load Life	~30W: ±[1%+0.05Ω] 50W: ±[3%+0.05Ω]	±[2%+0.05Ω]	Power rating 1.5 hours on, 30 minutes off, 1000 hours
Thermal Shock	±[0.5%+0.05Ω]	±[1%+0.05Ω]	Power rating 30 minutes, -55°C, 15~30 minutes

SURFACE TEMPERATURE INCREASE VERSUS POWER LOAD

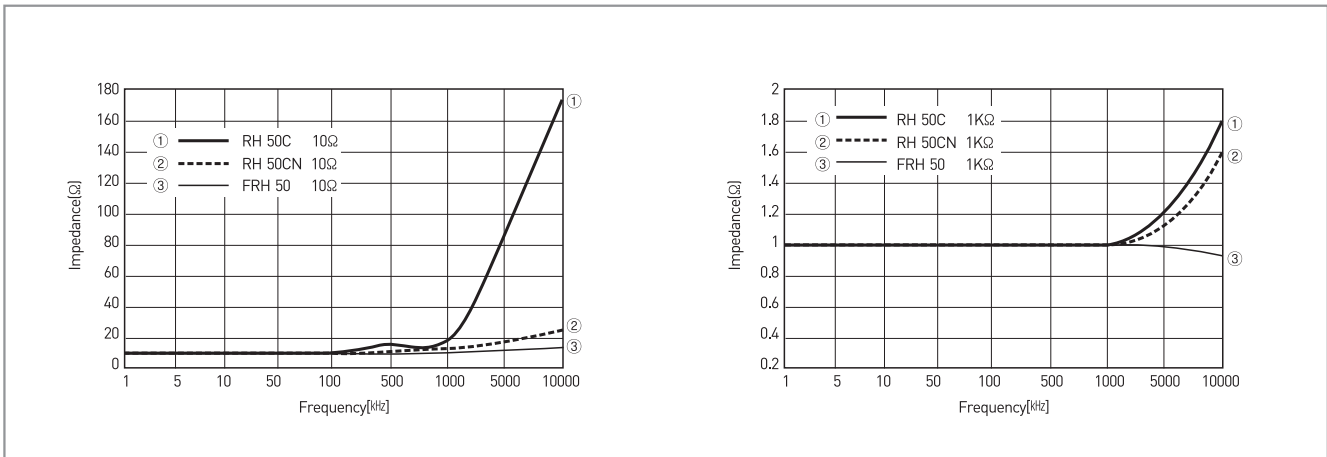


DIMENSIONS [mm]



Model	Dimensions(mm)			Weight [g]
	L1±1.5	L2±0.5	L3±0.3	
RH 25C	49.4	27.1	18.3	16.5
RH 50C	70.8	49.3	39.7	35
FRH 25C	49.4	27.1	18.3	16.5
FRH 50C	70.8	49.3	39.7	35

FREQUENCY CHARACTERISTIC CURVES



DERATING CURVES

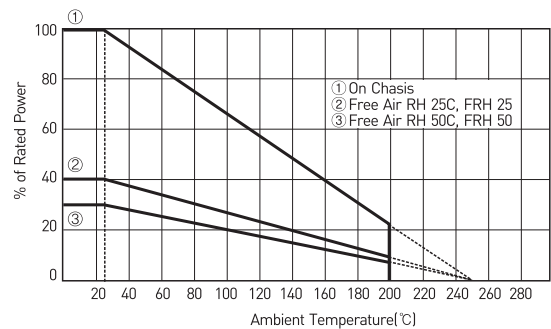
RH25, 50C and FRH resistors have an operating temperature range of -55°C to 250°C.

Derating is required for reduced chassis mounting area and for high ambient temperatures.

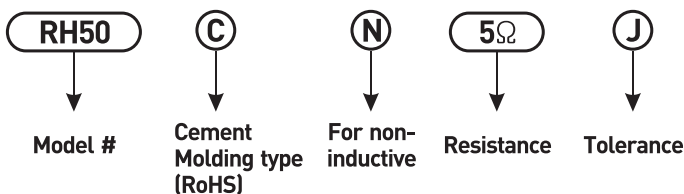
The following curves apply to operation of unmounted resistors.

Heat sink size: 178 × 127 × 51 × 1mm
305 × 305 × 2mm (RH50C, 50W)

1. On Chassis
2. Free Air RH 25C, FRH 25C
3. Free Air RH 50C, FRH 50C



ORDERING PROCEDURE EXAMPLE



If you require more detailed technical information please contact the RARA design team.
design1@raraohm.com