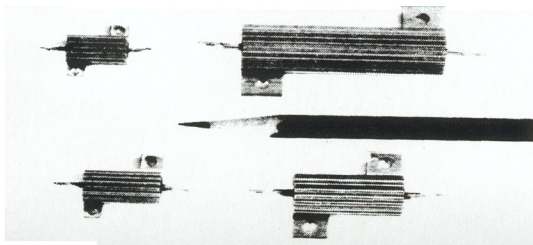




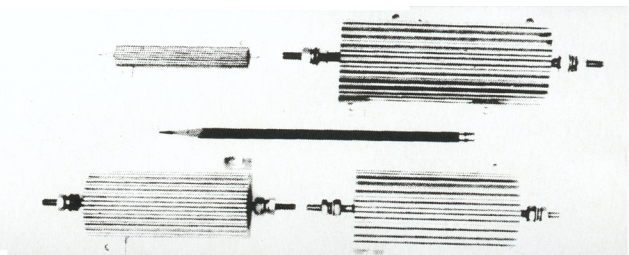
CODECO CORPORATION OF VERMONT

Series: KAL, Aluminum Housed Precision Power Resistors (5 through 250 watts)

The KAL series resistors are designed for high power dissipation with precision tolerances in a minimum of physical size. They provide extremely efficient heat dissipation by mounting solidly to a metal chassis surface for maximum heat transfer. All KAL series parts are RoHS compliant.



5 Watts Through 50 Watts
Compared To A Normal
Pencil



70 Watts Through 250 Watts
Compared To A Normal Pencil

General Specifications:

1. Low hot spot ratings due to exclusive complete encapsulation of the resistive element within the anodized aluminum body
2. Welded construction throughout assures long stable load life.
3. Copperweld leads are hot tin dipped for solderability. Heavy spade log type leads are used on the 5 through 70 watt sizes. Threaded heavy stud terminals are used on the 100 through 250 watt sizes.
4. Extruded aluminum housings are used for maximum heat dissipation.
5. Cores are centerless ground for complete uniformity.
6. Available in standard or non-inductive windings (NKAL).

Electrical Specifications:

1. Resistance Range: .05W through 275K
2. Tolerances: from 5% through 0.05%
3. Temperature Coefficient: 20PPM, slightly higher on low values resistors. Different TCs are available on special order.
4. Minimum dielectric strength: 1,000 VAC through 10 watts, 2,500 VAC through 70 watts and 5,500 VAC through 250 watts.
5. Operating temperature range: -55°C to +275°C
6. Stability: as low as 0.001% per annum.



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Derating:

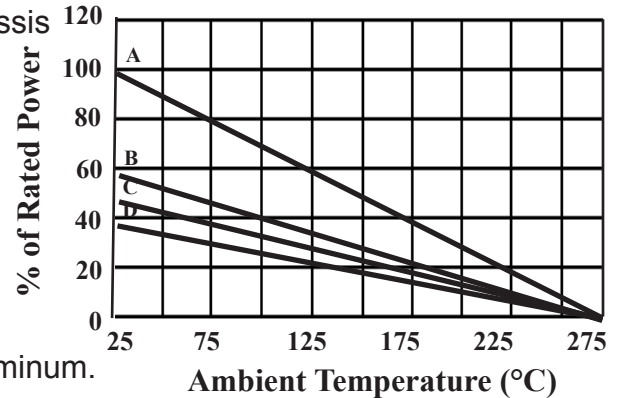
Derating is required whenever a reduced chassis mounting area is used and when the part is exposed to a high ambient temperature.

- Curve A: When resistor is mounted on a proper chassis
- Curve B: 5 & 10 watt resistor unmounted.
- Curve C: 25, 70 & 100 watt resistor unmounted.
- Curve D: 50, 180 & 250 watt resistor unmounted.

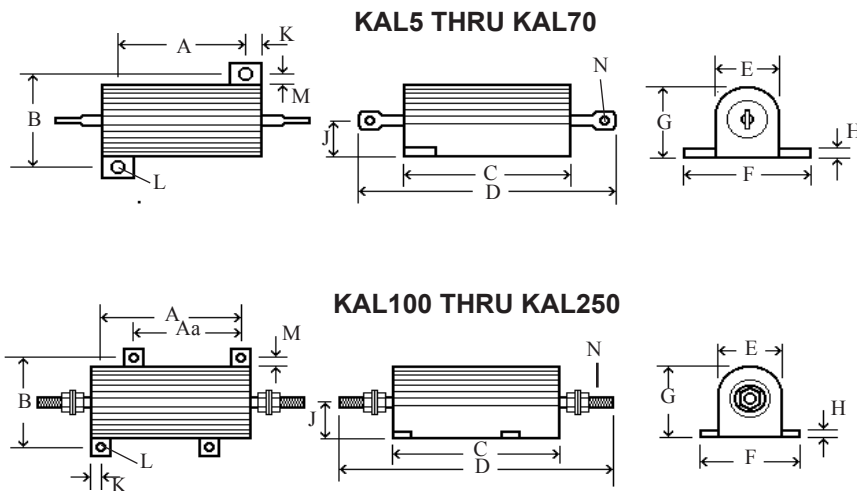
Proper chassis sizes:

- 5 & 10 watt 4 x 6 x .040 aluminum
- 25 watt 5 x 7 x .040 aluminum
- 50 & 70 watt 12 x 12 x .059 aluminum
- 100, 180 & 250 watts 12 x 12 x .125 aluminum.

KAL DERATING CURVE



Physical Dimensions



Type	Mil	Watts	Max	A	Aa	B	C	D	E	F	G	H	J	K	L	M	N
KAL5	RE60	7.5	15K	.444	-	.490	.600	1.13	.334	.646	.320	.065	.140	.078	.093	.078	.050
KAL10	RE65	12.5	30K	.562	-	.625	.750	1.38	.430	.800	.400	.075	.190	.093	.093	.102	.086
KAL25	RE70	25	50K	.719	-	.781	1.06	1.94	.530	1.08	.560	.085	.260	.172	.125	.155	.086
KAL50	RE75	50	150K	1.56	-	.844	1.97	2.78	.615	1.14	.615	.085	.300	.196	.125	.107	.086
KAL70	-	70	275K	2.63	-	.844	2.97	3.78	.625	1.16	.625	.094	.281	.196	.125	.125	.086
KAL100	RE77	100	50K	2.75	-	2.25	3.50	5.48	1.80	2.81	1.75	.188	.800	.375	.188	.250	12/24
KAL180	-	180	50K	2.77	-	2.50	3.50	5.48	2.13	3.00	2.19	.250	.950	.375	.188	.200	12/24
KAL250	RE80	250	45K	3.88	3.00	2.50	4.50	7.00	2.13	3.00	2.19	.250	1.00	.312	.188	.200	1/4/20