High Power Resistors

Type ER/ERV Series

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A tough silicone coated power resistor. The coating and marking are resistant to Trichloroethene VG, Genklene LV Hot and Cold, Freon TE, Arklone A, Flourosil E, Freon TMS, Arklone L Hot and Cold and Arklone F Hot. If the resistor is in contact with the PCB the maximum dissipation to avoid damage to the PCB may be ascertained by reference to the hot spot temperature graph. Vertical mounting style is available. The ER series is suited to a wide range of industrial, control, medical and consumer applications.

Key Features

- High Power Dissipation
- Tough Silicone Coating
- Special Pulse Styles Available
- 0.5% Tolerance Available
- Resistant to Most Solvents
- Vertical Mount Styles Available
- Custom Designs Welcomed
- Widely Available via Distribution

Characteristics - ER Series Electrical

	ER74	ER58	ER16	ER17
Power Rating (W) at 40°C:	3W	7W	11W	14W
Power Rating (W) at 70°C:	2.5W	6W	9W	12W
Resistance Range:	R03-10K	R05 - 20K	R13-68K	R20-100K
Maximum Element Volts:	100V	200V	500V	750V

Characteristics - ERV Series Electrical

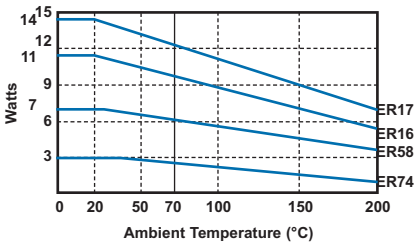
	ERV74	ERV58	ERV16
Power Rating (W) at 20°C*:	3W	7W	11W
Power Rating (W) at 70°C*:	1.5W	3W	5W
Resistance Range:	R10-3K9	R10-6K8	R15-27K
Maximum Element Volts:	100V	200V	500V

* When mounted in the horizontal and vertical plane only - inverted mounting may result in heat damage of the PCB - Consult Technical Department

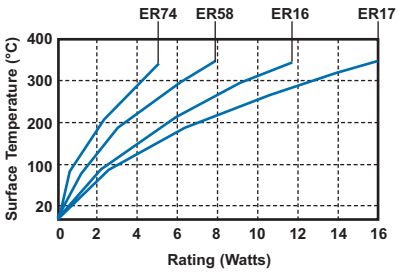
Characteristics - Environmental

Temperature Category:	-55°C to 200°C
Humidity Classification:	56 days
Standard Tolerances:	ER Series < 1 ohm ± 10% ~ > 1 ohm ± 5% ERV Series E24 - 5% ~ E12 10%
Tolerances of down to:	± 0.5% are available
Load Life Stability:	± 5%
Temperature Coefficient*:	< 1 ohm 0 ± 200ppm/°C maximum > 1 ohm 0 + 60 ppm/°C typical
*Very low temperature coefficients to ± 20ppm/°C are available to special order	
Solderability conforms to:	BS 2011 Test 2.1 Ta Solder bath method (IEC 68-2-20) Wets in < 2 seconds
Termination Robustness:	BS 2011 Test 2.1 Ua withstands 0.5 kg tensile load and double bend with 0.25 kg load
Endurance - 1000hrs @ 200°C:	ΔR -0 +2%
Overload:	10 time rated dissipation for 5 seconds ΔR ± 0.5%
Humidity:	56 days/95% R.H./ +_45°C -0 +5%
Temperature Rapid Change:	ΔR ± 0.03%

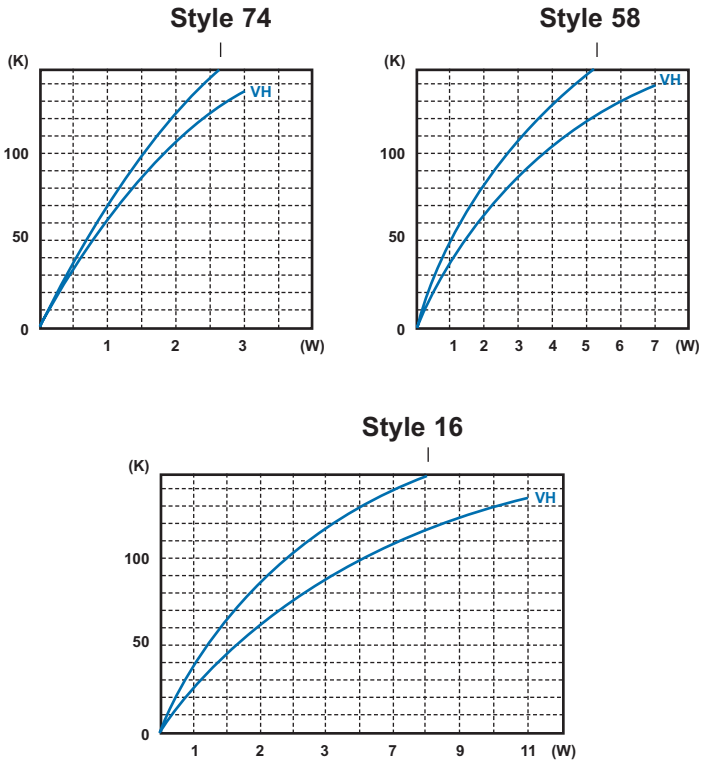
Power Ratings Dissipation / Ambient Temperature



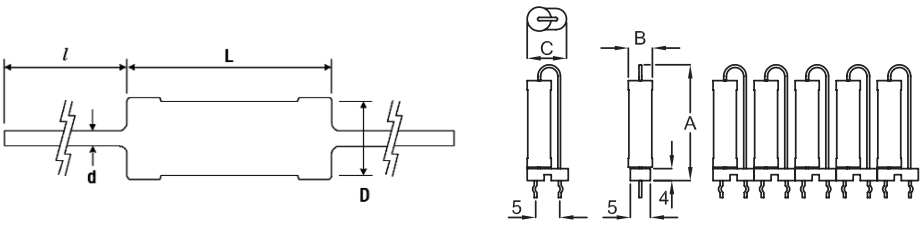
Power Ratings Hot Spot Temperature @ 40°C



Power Ratings (continued)



Dimensions

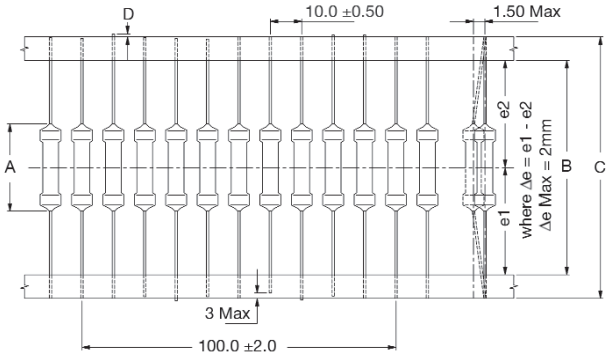


Type	L	D	l	d
ER74	13.5	6.0	38.0	0.8
ER58	22.2	8.0	38.0	0.8
ER16	38.1	8.0	38.0	0.8
ER17	53.5	8.0	38.0	0.8

Type	A	B	C
ERV74	19.0	5.6	9.7
ERV58	29.0	8.0	10.6
ERV16	43.0	8.0	10.6

- Resistance measured 6mm either side of body.
- Supplied in standard packs in arrays of 5 resistors with snap links for handling.

Taping Specification



Type	A Max	B ± 2.0	C ± 2.0	D Max
ER74	13.50	76.00	88.00	1.00
ER58	22.20	86.00	98.00	1.00
ER16	38.10	82.50	100.50	-
ER17	53.50	97.00	115.00	-

How to Order

ER	74	100R	J	T
Common Part	**Power Rating at 40°C**	**Resistance Value**	**Tolerance**	**Pack Style**
ER - Silicone Coated ERV - Silicone Coated Vertical Mount	74 - 3W 58 - 7W 16 - 11W 17 - 14W ER17 not available in ERV	0.1 ohm (100 milli ohms) R10 1 ohm (1000 milli ohms) 1R0 1K ohm (1000) ohms) 1K0	D - ±0.5% F - ±1% G - ±2% J - ±5% K - ±10%	T - Ammo Packed 6P - 6mm Boot (Boots on ERV Only) L - Loose (Standard for ER16 / ER17 only)