



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

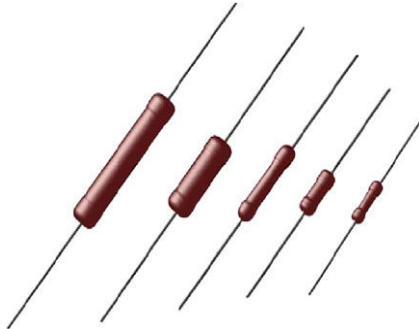
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Wirewound Resistors, Commercial Power, Silicone Coated, Axial Lead


FEATURES

- High temperature coating (> 350 °C)
- All welded construction
- Available with “vitreous like appearance” coating as ALVR
- Available in non-inductive styles with Ayrton-Perry winding for lowest reactive components, special “NI”
- Material categorization:
for definitions of compliance please see www.vishay.com/doc?99912


STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	POWER RATING ⁽¹⁾ $P_{25\text{ }^\circ\text{C}}$ W CHARACTERISTIC U +250 °C	POWER RATING ⁽¹⁾ $P_{25\text{ }^\circ\text{C}}$ W CHARACTERISTIC V +350 °C	RESISTANCE RANGE Ω	TOLERANCE ⁽²⁾ %	WEIGHT (typical) g
ALSR01	ALSR-1	1	-	0.10 to 6.37K	1, 3, 5, 10	0.27
ALVR01	ALVR-1	1	-	0.10 to 6.37K	1, 3, 5, 10	0.27
ALSR03	ALSR-3	3	-	0.10 to 12K	1, 3, 5, 10	0.68
ALVR03	ALVR-3	3	-	0.10 to 12K	1, 3, 5, 10	0.68
ALSR5A	ALSR-5A	4	5	0.10 to 40.3K	1, 3, 5, 10	2.1
ALVR5A	ALVR-5A	4	5	0.10 to 40.3K	1, 3, 5, 10	2.1
ALSR05	ALSR-5	5	7	0.10 to 58.5K	1, 3, 5, 10	3.2
ALVR05	ALVR-5	5	7	0.10 to 58.5K	1, 3, 5, 10	3.2
ALSR10	ALSR-10	7	10	0.10 to 92K	1, 3, 5, 10	4.9
ALVR10	ALVR-10	7	10	0.10 to 92K	1, 3, 5, 10	4.9

Notes

- ⁽¹⁾ Vishay Huntington ALSR / ALVR models have two power ratings depending on operation temperature and stability requirements. Models not available for characteristic V are: ALSR01, ALVR01, ALSR03, and ALVR03.
- ⁽²⁾ Other tolerances may be available, contact factory.

GLOBAL PART NUMBER INFORMATION

 Global Part Numbering example: **ALSR0325R00FE12NI**

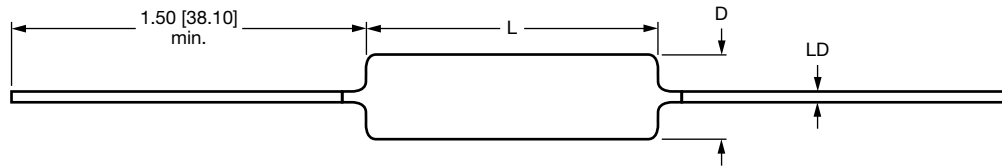
A	L	S	R	0	3	2	5	R	0	0	F	E	1	2	N	I
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GLOBAL MODEL (6 digits)	VALUE (5 digits)	TOLERANCE (1 digit)	PACKAGING (3 digits)	SPECIAL (up to 2 digits)
(see Standard Electrical Specifications Global Model column for options)	R = decimal K = thousand 1R500 = 1.5 Ω 1K500 = 1.5 k Ω	F = \pm 1.0 % H = \pm 3.0 % J = \pm 5.0 % K = \pm 10.0 %	E07 = tape / reel (ALSR5A / ALVR5A, ALSR05 / ALVR05) E08 = tape / reel (ALSR01 / ALVR01) E29 = tape / reel (ALSR10 / ALVR10) E48 = tape / reel (ALSR03 / ALVR03) E70 = tape / reel, 1K pieces (smaller than ALSR05 / ALVR05) E73 = tape / reel, 500 pieces E12 = bulk, 100 pc boxes	(dash number) from 1 to 99 as applicable NI = non-inductive

 Historical Part Number example: **ALSR-3-25-1 %-NI**

ALSR-3	25 Ω	1 %	NI
HISTORICAL MODEL	RESISTANCE VALUE	TOLERANCE	SPECIAL

DIMENSIONS in inches [millimeters]



GLOBAL MODEL	DIMENSIONS in inches [millimeters]		
	L ± 0.032 [0.813]	D ± 0.032 [0.813]	LD ± 0.002 [0.051]
ALSR01	0.406 [10.31]	0.110 [2.79]	0.020 [0.508]
ALVR01	0.406 [10.31]	0.110 [2.79]	0.020 [0.508]
ALSR03	0.500 [12.70]	0.180 [4.57]	0.032 [0.813]
ALVR03	0.500 [12.70]	0.180 [4.57]	0.032 [0.813]
ALSR5A	0.920 [23.37]	0.200 [5.08]	0.032 [0.813]
ALVR5A	0.920 [23.37]	0.200 [5.08]	0.032 [0.813]
ALSR05	0.875 [22.23]	0.312 [7.92]	0.032 [0.813]
ALVR05	0.875 [22.23]	0.312 [7.92]	0.032 [0.813]
ALSR10	1.730 [43.94]	0.312 [7.92]	0.032 [0.813]
ALVR10	1.730 [43.94]	0.312 [7.92]	0.032 [0.813]

MATERIAL SPECIFICATIONS

Element: copper-nickel alloy or nickel-chrome alloy, depending on resistance value

Core: ceramic: steatite or alumina, depending on physical size

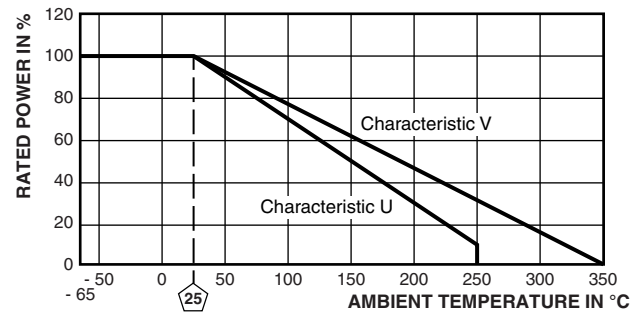
End Caps: stainless steel

Coating: special high temperature silicone or special formula of “vitreous like appearance” coating on ALVR

Terminals: tinned Copper clad steel

Part Marking: HEI, model, value, tolerance, date code

DERATING



TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	± 30 for 10 Ω and above; ± 50 for 1 Ω to 9.9 Ω; ± 90 for 0.5 Ω to 0.99 Ω
Terminal Strength	lb	10 minimum
Dielectric Withstanding Voltage	V _{AC}	500 for 1 W and 1000 for 3 W and above
Operating Temperature Range	°C	Characteristic U = -65 to +250, characteristic V = -65 to +350
Maximum Working Voltage	V	$(P \times R)^{1/2}$

PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS (CHARACTERISTIC V)
Thermal Shock	Rated power applied until thermally stable, then a minimum of 15 min at -55 °C	± (2.0 % + 0.05 Ω) > ΔR
Short Time Overload	5x rated power (3 W and smaller), 10x rated power (4 W and larger) for 5 s	± (2.0 % + 0.05 Ω) > ΔR
Dielectric Withstanding Voltage	500 V _{RMS} , 1 min for 1 W and 1000 V _{RMS} , 1 min for 3 W and above	± (0.1 % + 0.05 Ω) > ΔR
Low Temperature Storage	-65 °C for 24 h	± (2.0 % + 0.05 Ω) > ΔR
High Temperature Exposure	250 h at U = +250 °C, V = +350 °C	± (4.0 % + 0.05 Ω) > ΔR
Mechanical Shock	MIL-STD-202 method 213, 100 g's for 6 ms, 10 shocks	± (0.2 % + 0.05 Ω) > ΔR
Vibration	Frequency varied 10 Hz to 2000 Hz, 20 g peak, 2 directions 6 h each	± (0.2 % + 0.05 Ω) > ΔR
Load Life	2000 h at rated power, +25 °C, 1.5 h “ON”, 0.5 h “OFF”	± (3.0 % + 0.05 Ω) > ΔR
Moisture Resistance	MIL-STD-202 method 106, 7b not applicable	± (2.0 % + 0.05 Ω) > ΔR



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