AVH Series

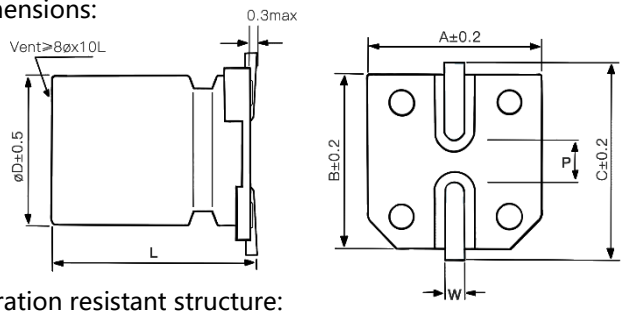
Features

- φ6.3 ~ φ12.5, 125℃, 1000~2000 hours assured
- For automobile modules and other high temperature applications
- Designed for reflow soldering
- Designed for surface mounting on high-density PCB
- Vibration resistant structure
- RoHS 2.0 compliant, 247 REACH&SVHC compliant
- AEC-Q200 compliant, Please contact Jarson for more details, test data, information

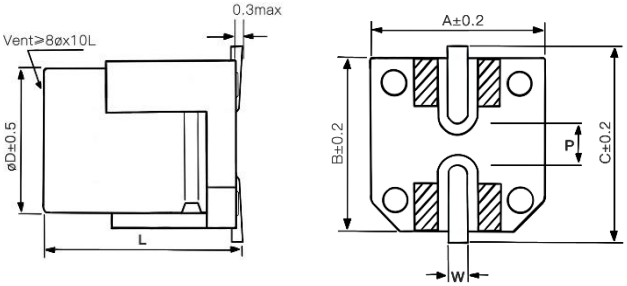
Marking color: Black

Specifications							
Category temp. range	–40℃ to +125℃						
Capacitance tolerance	±20% (120 Hz / +20 ℃)						
Leakage current	I ≦ 0.01 CV or 3 μA whichever is greater (after 2 minutes)						
Tan δ	Please see the attached characteristics list						
Characteristics at low temperature(Impedance ratio at 120 Hz)	Rated voltage (V)	10	16	25	35	50	63
	Z (-25 ℃) / Z (+20 ℃)	6	5	4	3	3	3
	Z (-40 ℃) / Z (+20 ℃)	12	8	6	4	4	4
Endurance	After applying rated working voltage for 1000/2000 hours at +125 ℃ ± 2 ℃, and then being stabilized at +20 ℃, capacitors shall meet the following limits.						
	Test Time	φD ≦ 8x6.5mm: 1000H , φD ≧ 8mm: 2000H					
	Capacitance change	Within ±30% of the initial value					
	Dissipation factor (tan δ)	Less than 300% of the initial value					
	Leakage current	Within the initial limit					
Shelf life	After storage for 1000 h at +125 ℃ ± 2 ℃ with no voltage applied and then being stabilized at +20 ℃, capacitors shall meet the limits specified in endurance.						
Resistance to soldering heat	After reflow soldering and then being stabilized at +20 ℃, capacitors shall meet the following limits.						
	Capacitance change	Within ±10% of the initial value					
	Dissipation factor (tan δ)	Within the initial limit					
	Leakage current	Within the initial limit					
Frequency correction factor for ripple current	Frequency	50Hz	120Hz	1kHz	10kHz≦		
	Correction Factor	0.5	0.65	0.85	1.0		

Dimensions:



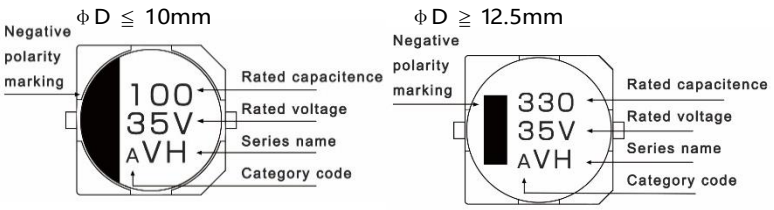
Vibration resistant structure:



Dimensions						Unit: mm
φD	L	A	B	C	W	P±0.2
6.3	5.7±0.3	6.6	6.6	7.3	0.5~0.8	2.0
6.3	7.7±0.3	6.6	6.6	7.3	0.5~0.8	2.0
8	6.5±0.5	8.3	8.3	9.1	0.7~1.3	3.1
8	10.5±0.5	8.3	8.3	9.1	0.7~1.3	3.1
10	10.5±0.5	10.3	10.3	11.1	0.7~1.3	4.4
12.5	13.5±0.5	13.0	13.0	14.0	1.1~1.4	4.4
12.5	16±0.5	13.0	13.0	14.0	1.1~1.4	4.4

▨ : Aid electrode

Marking:



Part Number System:

SMD Aluminum E-Caps	VH series	16V	220μF	±20 %	10Φx10.5L
A	**VH**	**1C**	**221**	**M**	**1010**
Product category	Series name	Rated voltage	Capacitance	Capacitance tolerance	Case Size

Characteristics list

Rated voltage (V)	Capacitance (±20%) (μF)	Case size		Specification			Part Number④	Taping&Reel
		øD (mm)	L (mm)	Rated ripple current① (mA rms)	Imp.② (Ω)	tan δ③		MPQ (pcs/reel)
10	47	6.3	5.7	70	1.60	0.30	AVH1A470M0606	1000
	68	6.3	5.7	70	1.60	0.30	AVH1A680M0606	1000
	100	6.3	7.7	100	1.00	0.30	AVH1A101M0607	1000
		8	6.5	100	1.00	0.30	AVH1A101M0806	1000
	220	8	10.5	200	0.50	0.30	AVH1A221M0810	500
	330	8	10.5	200	0.50	0.30	AVH1A331M0810	500
	470	10	10.5	280	0.30	0.30	AVH1A471M1010	500
	680	12.5	13.5	750	0.12	0.30	AVH1A681M1313	200
	1000	12.5	13.5	750	0.12	0.30	AVH1A102M1313	200
	1500	12.5	13.5	750	0.12	0.32	AVH1A152M1313	200
16	33	6.3	5.7	70	1.60	0.23	AVH1C330M0606	1000
	47	6.3	7.7	100	1.00	0.23	AVH1C470M0607	1000
	68	6.3	7.7	100	1.00	0.23	AVH1C680M0607	1000
		8	6.5	100	1.00	0.23	AVH1C680M0806	1000
	100	6.3	7.7	100	1.00	0.23	AVH1C101M0607	1000
		8	6.5	100	1.00	0.23	AVH1C101M0806	1000
	220	8	10.5	200	0.50	0.23	AVH1C221M0810	500
		10	10.5	280	0.30	0.23	AVH1C221M1010	500
	330	10	10.5	280	0.30	0.23	AVH1C331M1010	500
		12.5	13.5	750	0.12	0.23	AVH1C331M1313	200
	470	12.5	13.5	750	0.12	0.23	AVH1C471M1313	200
	680	12.5	13.5	750	0.12	0.23	AVH1C681M1313	200
	1000	12.5	13.5	750	0.12	0.23	AVH1C102M1313	200
25	33	6.3	5.7	70	1.60	0.18	AVH1E330M0606	1000
	47	6.3	7.7	100	1.00	0.18	AVH1E470M0607	1000
		8	6.5	100	1.00	0.18	AVH1E470M0806	1000
	100	8	6.5	100	1.00	0.18	AVH1E101M0806	1000
		8	10.5	200	0.50	0.18	AVH1E101M0810	500
	220	8	10.5	200	0.50	0.18	AVH1E221M0810	500
		10	10.5	280	0.30	0.18	AVH1E221M1010	500
	330	10	10.5	280	0.30	0.18	AVH1E331M1010	500
		12.5	13.5	750	0.12	0.18	AVH1E331M1313	200
	470	12.5	13.5	750	0.12	0.18	AVH1E471M1313	200
	680	12.5	13.5	750	0.12	0.18	AVH1E681M1313	200

① Rated ripple current (100kHz / +125℃) ② Impedance (100kHz / +20℃) ③ tan δ (120Hz / +20℃)

④ For automotive, the Part Number is appended with "a" at the end. ⑤ For Vibration resistant structure, the Part Number is appended with "v" at the end.

※Please refer to the page of reflow conditions for reflow profile.

Characteristics list

Rated voltage (V)	Capacitance (±20%) (μF)	Case size		Specification			Part Number④	Taping&Reel
		øD (mm)	L (mm)	Rated ripple current① (mA rms)	Imp.② (Ω)	tan δ③		MPQ (pcs/reel)
35	22	6.3	5.7	70	1.60	0.16	AVH1V220M0606	1000
	33	6.3	7.7	100	1.00	0.16	AVH1V330M0607	1000
		8	6.5	100	1.00	0.16	AVH1V330M0806	1000
	47	8	6.5	100	1.00	0.16	AVH1V470M0806	1000
		8	10.5	200	0.50	0.16	AVH1V470M0810	500
	68	8	10.5	200	0.50	0.16	AVH1V680M0810	500
	100	10	10.5	280	0.30	0.16	AVH1V101M1010	500
	220	10	10.5	280	0.30	0.16	AVH1V221M1010	500
		12.5	13.5	750	0.12	0.16	AVH1V221M1313	200
	330	12.5	13.5	750	0.12	0.16	AVH1V331M1313	200
	470	12.5	13.5	750	0.12	0.16	AVH1V471M1313	200
50	10	6.3	7.7	85	1.60	0.15	AVH1H100M0607	1000
		8	6.5	85	1.60	0.15	AVH1H100M0806	1000
	22	6.3	7.7	85	1.60	0.15	AVH1H220M0607	1000
		8	6.5	85	1.60	0.15	AVH1H220M0806	1000
	33	8	6.5	85	1.60	0.15	AVH1H330M0806	1000
		8	10.5	160	0.75	0.15	AVH1H330M0810	500
	47	8	10.5	160	0.75	0.15	AVH1H470M0810	500
		10	10.5	240	0.50	0.15	AVH1H470M1010	500
	68	10	10.5	240	0.50	0.15	AVH1H680M1010	500
	100	10	10.5	240	0.50	0.15	AVH1H101M1010	500
		12.5	13.5	550	0.23	0.15	AVH1H101M1313	200
	220	12.5	13.5	550	0.23	0.15	AVH1H221M1313	200
	330	12.5	13.5	550	0.23	0.15	AVH1H331M1313	200
63	10	6.3	7.7	60	2.20	0.13	AVH1J100M0607	1000
		8	6.5	60	2.20	0.13	AVH1J100M0806	1000
	22	8	10.5	100	1.00	0.13	AVH1J220M0810	500
	33	8	10.5	100	1.00	0.13	AVH1J330M0810	500
		10	10.5	150	0.80	0.13	AVH1J330M1010	500
	47	8	10.5	100	1.00	0.13	AVH1J470M0810	500
		10	10.5	150	0.80	0.13	AVH1J470M1010	500
	68	10	10.5	150	0.80	0.13	AVH1J680M1010	500
	100	10	10.5	150	0.80	0.13	AVH1J101M1010	500
		12.5	13.5	450	0.26	0.13	AVH1J101M1313	200
	220	12.5	13.5	450	0.26	0.13	AVH1J221M1313	200

① Rated ripple current (100kHz / +125℃) ② Impedance (100kHz / +20℃) ③ tan δ (120Hz / +20℃)

④ For automotive，the Part Number is appended with "a" at the end. ⑤ For Vibration resistant structure，the Part Number is appended with "v" at the end.

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