AWH Series

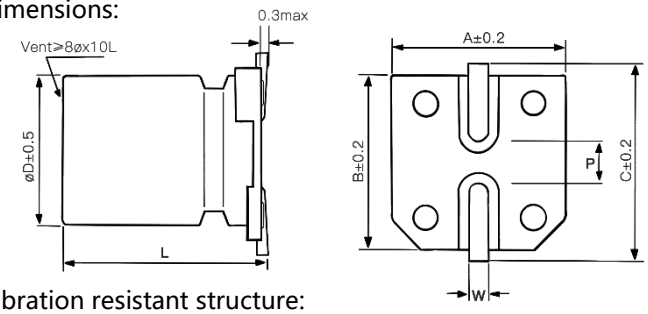
Features

- φ6.3 ~ φ12.5, 125℃, 2000~3000 hours assured
- Low impedance capacitors
- 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

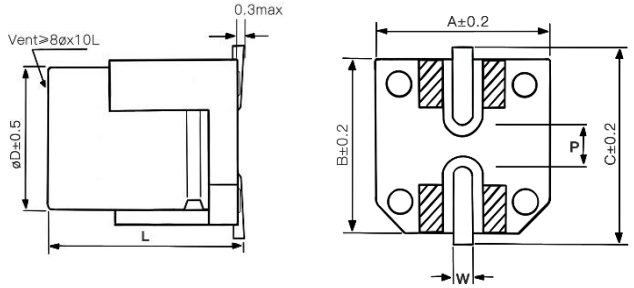
Marking color: Black

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	Rated voltage (V)	10	16	25	35	50	Impedance ratio at 120 Hz
	Z (-40 ℃) / Z (+20 ℃)	12	8	6	4	4	
Endurance	After applying rated working voltage for 2000/3000 hours at +125 ℃ ± 2 ℃, and then being stabilized at +20 ℃, capacitors shall meet the following limits.						
	Test Time	φD = 6.3mm: 2000H φD = 8~12.5mm: 3000H					
	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	300Hz	1kHz	10kHz≦	
	Correction Factor	0.35	0.5	0.64	0.83	1.0	

Dimensions:



Vibration resistant structure:

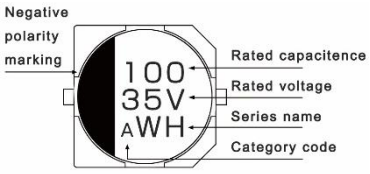


: Aid electrode

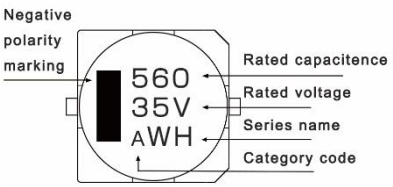
Dimensions						Unit: mm
φD	L	A	B	C	W	P±0.2
6.3	7.7±0.3	6.6	6.6	7.3	0.5~0.8	2.0
8	10.5±0.5	8.3	8.3	9.1	0.7~1.3	3.1
10	10.5±0.5	10.3	10.3	11.1	0.7~1.3	4.4
12.5	13.5±0.5	13.0	13.0	14.0	1.1~1.4	4.4

Marking:

ΦD ≦ 10mm



ΦD ≧ 12.5mm



Part Number System:

SMD Aluminum E-Caps	WH series	16V	220μF	±20 %	8Φx10.5L
A	**WH**	**1C**	**221**	**M**	**0810**
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	220	8	10.5	270	0.20	0.30	AWH1A221M0810	500
	330	8	10.5	270	0.20	0.30	AWH1A331M0810	500
		10	10.5	500	0.15	0.30	AWH1A331M1010	500
	470	10	10.5	500	0.15	0.30	AWH1A471M1010	500
16	100	6.3	7.7	197	0.50	0.23	AWH1C101M0607	1000
		8	10.5	270	0.20	0.23	AWH1C101M0810	500
	220	8	10.5	270	0.20	0.23	AWH1C221M0810	500
	330	10	10.5	500	0.15	0.23	AWH1C331M1010	500
	470	10	10.5	500	0.15	0.23	AWH1C471M1010	500
25	100	6.3	7.7	197	0.50	0.18	AWH1E101M0607	1000
		8	10.5	270	0.20	0.18	AWH1E101M0810	500
	220	8	10.5	270	0.20	0.18	AWH1E221M0810	500
		10	10.5	500	0.15	0.18	AWH1E221M1010	500
	330	10	10.5	500	0.15	0.18	AWH1E331M1010	500
	820	12.5	13.5	1700	0.08	0.18	AWH1E821M1313	200
	1000	12.5	13.5	1700	0.08	0.18	AWH1E102M1313	200
35	33	6.3	7.7	197	0.50	0.16	AWH1V330M0607	1000
	47	6.3	7.7	197	0.50	0.16	AWH1V470M0607	1000
		8	10.5	270	0.20	0.16	AWH1V470M0810	500
	100	8	10.5	270	0.20	0.16	AWH1V101M0810	500
	220	10	10.5	500	0.15	0.16	AWH1V221M1010	500
	330	10	10.5	500	0.15	0.16	AWH1V331M1010	500
	470	12.5	13.5	1700	0.08	0.16	AWH1V471M1313	200
	560	12.5	13.5	1700	0.08	0.16	AWH1V561M1313	200
	680	12.5	13.5	1700	0.08	0.16	AWH1V681M1313	200
50	22	6.3	7.7	197	0.50	0.16	AWH1H220M0607	1000
	33	6.3	7.7	197	0.50	0.16	AWH1H330M0607	1000
		8	10.5	270	0.25	0.16	AWH1H330M0810	500
	47	8	10.5	270	0.25	0.16	AWH1H470M0810	500
	82	10	10.5	500	0.20	0.16	AWH1H820M1010	500
	100	10	10.5	500	0.20	0.16	AWH1H101M1010	500
	220	12.5	13.5	1000	0.15	0.16	AWH1H221M1313	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.