reALcap™ AHV Series

- High Voltage(16～100V)
- High Ripple Current
- Endurance 105℃, 2,000～5,000hrs
- AEC-Q200 compliant : Please contact us for more details, test data, information.

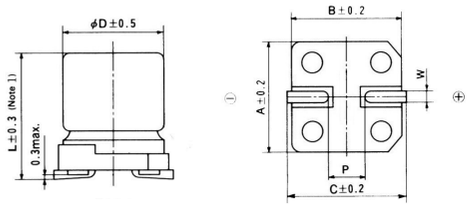
ASV → AHV
High Voltage

SPECIFICATIONS

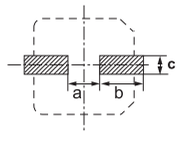
Item	Characteristics
Category temperature range	-55 to +105℃
Rated voltage range	16 to 100VDC
Surge voltage	Rated Voltage(WV): 16, 20, 25, 35, 50, 63, 80, 100 Surge Voltage(SV): 18.4, 23, 29, 40, 57.5, 72.5, 92, 115
Capacitance tolerance	±20%(M) (at 20℃, 120Hz)
Tangent of loss angle	Shall not exceed the value in Ratings of AHV series. (at 20℃, 120Hz)
Leakage Current ※ 1	Shall not exceed the value in Ratings of AHV series. (at 20℃, 2minutes)
ESR	Shall not exceed the value in Ratings of AHV series. (at 20℃, 100kHz)
Impedance Ratio (Characteristics at low temp.)	Impedance / Ratio Z(-25℃)/Z(+20℃) ≤ 1.15 Z(-55℃)/Z(+20℃) ≤ 1.25 (at 100kHz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for the specified time at 105℃. Capacitance change ≦ ±20% of the initial value Tan δ ≦ 150% of the initial specified value ESR ≦ 150% of the initial specified value Leakage current ≦ The initial specified value Voltage(V) / Case Code / Time(Hrs): 16～80 F60, H70 3,000; 16～80 H12, J10 5,000; 100 H12, J10 2,000
Bias Humidity	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjecting them to the DC rated voltage at 60℃, 90～95%RH for 1000 hours. Capacitance change ≦ ±20% of the initial value Tan δ ≦ 150% of the initial specified value ESR ≦ 150% of the initial specified value Leakage current ≦ The initial specified value

※ 1. If any doubt arises, remeasure the leakage current after following voltage treatment.(Voltage treatment : Applying rated voltage for 120minutes at 105℃)
※ 2. Reflow Conditions : Refer to 37 page

DIMENSIONS



Recommended solder land on PC board



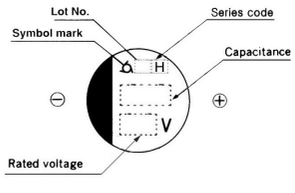
▨ : Solder land on PC board

Note 1 : L±0.5 for 8×11.5(H12), L±0.7 for 10×10(J10)

Unit(mm)

Case code	ø D	L	A	B	C	W	P	a	b	c
F60	6.3	5.7	6.6	6.6	7.2	0.5-0.8	1.9	1.9	3.5	1.6
H70	8.0	6.7	8.3	8.3	9.0	0.5-0.8	3.1	3.1	4.2	1.6
H12	8.0	11.5	8.3	8.3	9.0	0.7-1.1	3.1	3.1	4.2	2.2
J10	10.0	10.0	10.3	10.3	11.0	0.7-1.1	4.5	4.5	4.4	2.2

MARKING



RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Freq.(Hz)	120≦ f <1k	1k≦ f <10k	10k≦ f <100k	100k≦ f <500k
Factor	0.05	0.3	0.7	1

RATINGS OF AHV Series

Case Code	Rated Voltage (V)	Rated Capacitance (μF)	ESR(mΩ) (at 100kHz)	Rated Ripple Current(mArms/ 105℃, 100kHz)	Tangent of loss angle	Leakage Current (μA)
F60	16	56	40	1,790	0.10	179
	20	47	40	1,790	0.10	188
	25	33	45	1,690	0.10	165
	35	18	47	1,650	0.10	126
	50	12	50	1,600	0.10	120
	63	10	60	1,460	0.10	126
H70	16	82	35	1,910	0.10	262
	20	68	35	1,910	0.10	272
	25	56	40	1,790	0.10	280
	35	27	42	1,750	0.10	189
	50	22	45	1,690	0.10	220
	63	12	50	1,620	0.10	151
H12	16	270	25	2,800	0.10	864
	20	220	25	2,800	0.10	880
	25	150	30	2,560	0.10	750
	35	82	35	2,370	0.10	574
	50	56	40	2,210	0.10	560
	63	39	45	2,090	0.10	491
	80	33	50	1,980	0.10	528
	100	15	60	1,810	0.10	300
J10	16	470	25	3,010	0.10	1504
	20	330	25	3,010	0.10	1320
	25	270	30	2,750	0.10	1350
	35	120	35	2,550	0.10	840
	50	82	40	2,380	0.10	820
	63	68	45	2,240	0.10	857
	80	47	50	2,130	0.10	752
	100	22	60	1,940	0.10	440