SMD Aluminum Electrolytic Capacitors VUA

Features

- 6.3 ~ 18 ϕ, 125℃, 1,000 ~ 2,000 hours assured
- Chip type high temperature range, for +125℃ use
- For automobile modules and other high temperature applications
- RoHS Compliance

Marking color: Black

SPECIFICATIONS

Items	Performance
Category Temperature Range	-40℃ ~ +125℃
Capacitance Tolerance	±20% (at 120Hz, 20℃)
Leakage Current (at 20℃)	I = 0.03CV or 4 (μA) whichever is greater (after 1 minutes) Where, C = rated capacitance in μF V = rated DC working voltage in V
Dissipation Factor (Tan δ at 120Hz, 20℃)	

Rated Voltage	10	16	25	35	50
Tan δ (max)	0.32	0.24	0.21	0.18	0.15

Low Temperature Characteristics (at 120Hz)

Impedance ratio shall not exceed the values given in the table below.

Rated Voltage		10	16	25	35	50
Impedance Ratio	Z(-25℃)/Z(+20℃)	6	5	4	3	3
	Z(-40℃)/Z(+20℃)	12	8	6	4	4

Endurance

Test Time	1,000 Hrs for ϕD ≦ 8 × 6.5mm 2,000 Hrs for ϕD ≧ 8 × 10mm
Capacitance Change	Within ±30% of initial value
Dissipation Factor	Less than 300% of specified value
Leakage Current	Within specified value

* The above specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage applied for 1,000 / 2,000 hours at 125℃.

Shelf Life Test

Test Time	1,000 Hrs
Capacitance Change	Within ±30% of initial value
Dissipation Factor	Less than 300% of specified value
Leakage Current	Within specified value

* The above specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 125℃ without voltage applied.

Ripple Current & Frequency Multipliers

Freq.(Hz) / Cap.(μF)	50	120	1k	10k up
Under 330	0.80	1.0	1.25	1.40
300 < C ≦ 1,000	0.85	1.0	1.20	1.30

DIAGRAM OF DIMENSIONS

Fig. 1

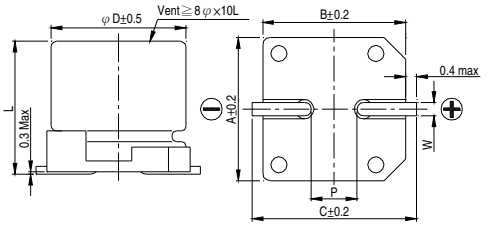
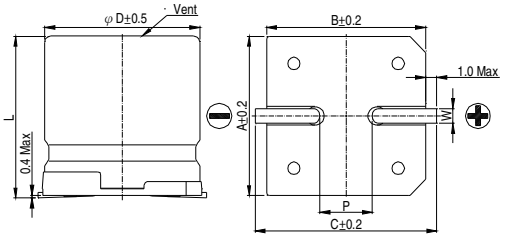


Fig. 2

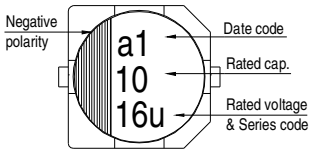


LEAD SPACING AND DIAMETER Unit: mm

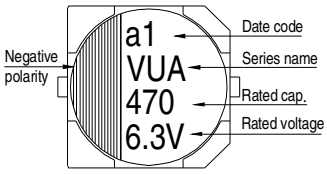
φD	L	A	B	C	W	P ± 0.2	Fig. No.
6.3	5.7± 0.3	6.6	6.6	7.4	0.5 ~ 0.8	2.0	1
6.3	7.7 ± 0.3	6.6	6.6	7.4	0.5 ~ 0.8	2.0	1
8	6.5 ± 0.3	8.4	8.4	9.2	0.5 ~ 0.8	2.3	1
8	10 ± 0.5	8.4	8.4	9.2	0.7 ~ 1.1	3.1	1
10	10 ± 0.5	10.4	10.4	11.2	0.7 ~ 1.1	4.7	1
12.5	13.5 ± 0.5	13.0	13.0	15.0	1.1 ~ 1.4	4.4	2
12.5	16 ± 0.5	13.0	13.0	15.0	1.1 ~ 1.4	4.4	2
16	16.5 ± 0.5	17.0	17.0	19.0	1.1 ~ 1.4	6.4	2
18	16.5 ± 0.5	19.0	19.0	21.0	1.1 ~ 1.4	6.4	2

MARKING

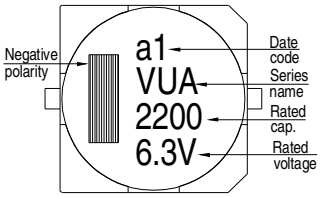
ϕD = 6.3 mm



ϕD = 8 ~ 10 mm



ϕD ≧ 12.5mm



DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension: ϕD × L(mm)
Ripple Current: mA/rms at 120 Hz, 125°C

V. DC / μF	Contents	10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)	
		ϕD×L	mA	ϕD×L	mA	ϕD×L	mA	ϕD×L	mA	ϕD×L	mA
22	220							6.3×5.7	50	8×6.5	75
33	330			6.3×5.7	50	6.3×5.7	50	6.3×7.7	70	8×10	130
47	470			6.3×7.7	70	6.3×7.7	70	8×6.5	75	8×10	130
68	680	6.3×5.7	50	8×6.5	75	8×6.5	75	8×10	130	10×10	180
100	101	8×6.5	75	8×6.5	75	8×10	130	10×10	180	12.5×13.5	357
220	221	8×10	130	10×10	180	10×10	180	12.5×13.5	357	12.5×16	400
330	331	8×10	130	12.5×13.5	480	12.5×13.5	480	16×16.5	650	16×16.5	650
470	471	12.5×13.5	480	12.5×13.5	480	12.5×13.5	480	16×16.5	650	16×16.5	650
680	681	12.5×13.5	480	12.5×13.5	480	12.5×16	585	16×16.5	650	18×16.5	855
1,000	102	12.5×16	585	12.5×16	585	16×16.5	650	18×16.5	855		
1,500	152	12.5×16	585	16×16.5	650	18×16.5	855				
2,200	222	16×16.5	650	18×16.5	855						
3,300	332	18×16.5	855								
4,700	472	18×16.5	855								