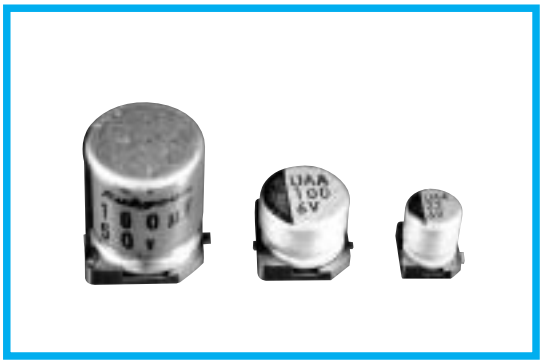
SEV SERIES

85℃, Lead Free Reflow Soldering.



◆FEATURES

- Case Dia ϕ3～ϕ18mm
- Lead free reflow soldering is available.
- Available for high density mounting.
- RoHS compliance.

◆SPECIFICATIONS

Items	Characteristics
Category Temperature Range	−40～+85℃
Rated Voltage Range	4～100V.DC
Capacitance Tolerance	±20%（20℃，120Hz）
Leakage Current(MAX)	I=0.01CV or 3 μA whichever is greater. (After 2 minutes application of rated voltage) I=Leakage Current(μA) C=Rated Capacitance(μF) V=Rated Voltage(V)
Dissipation Factor(MAX) (tan δ)	See table below (20℃，120Hz)
Endurance	After applying rated voltage with rated ripple current for 2000 hrs at 85℃, the capacitors shall meet the following requirements.
Low Temperature Stability Impedance Ratio(MAX)	See table below (120Hz)

Dissipation Factor(MAX) (tan δ) — (20℃，120Hz)

Rated Voltage (V)		4	6.3	10	16	25	35	50	63	100
tan δ	ϕ3	0.40	0.30	—	0.20	0.16	0.14	0.14	—	—
	ϕ4,ϕ5,ϕ6.3×5.5	0.40	0.26	0.22	0.18	0.16	0.13	0.12	—	—
	ϕ6.3×8,ϕ8～ϕ18	0.50	0.35	0.26	0.20	0.16	0.14	0.12	0.12	0.10

When rated capacitance is over 1000 μF, tan δ shall be added 0.02 to the listed value with increase of every 1000 μF.

Endurance

Capacitance Change	Within ±25% of the initial value.
Dissipation Factor	Not more than 200% of the specified value.
Leakage Current	Not more than the specified value.

Low Temperature Stability Impedance Ratio(MAX) — (120Hz)

Rated Voltage (V)	4	6.3	10	16	25	35	50	63	100
Z(−25℃)/Z(20℃)	7	4	3	2	2	2	2	2	2
Z(−40℃)/Z(20℃)	15	8	8	4	4	3	3	5	5

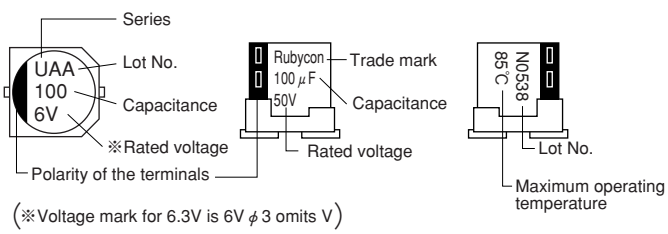
◆MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Frequency (Hz)		60(50)	120	500	1k	10k≦
Coefficient	0.1～1 μF	0.50	1.00	1.20	1.30	1.50
	2.2～4.7 μF	0.65	1.00	1.20	1.30	1.50
	10～47 μF	0.80	1.00	1.20	1.30	1.50
	100～1000 μF	0.80	1.00	1.10	1.15	1.20
	2200～10000 μF	0.80	1.00	1.05	1.10	1.15

◆MARKING

〈ϕ3～ϕ6.3, ϕ8×6.5〉 〈ϕ8×10.5, ϕ10～ϕ18〉



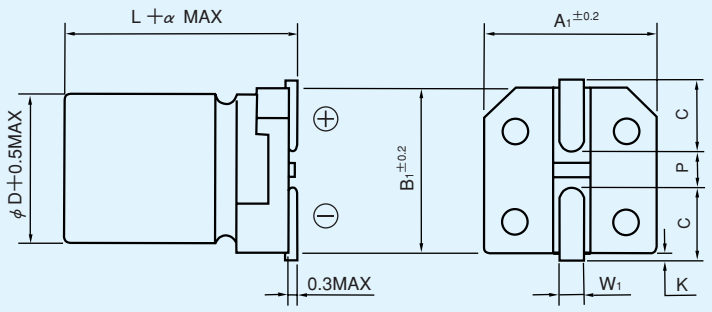
(※Voltage mark for 6.3V is 6V ϕ3 omits V)

◆PART NUMBER

□□□ Rated Voltage / SEV Series / □□□□□ Rated Capacitance / □ Capacitance Tolerance / □□□ Option / D×L Case Size

◆DIMENSIONS

(mm)



φ8×10.5～φ18 have sleeve.

φD	L	A1	B1	C	W1	P	K	α
3	5.5	3.3	3.3	1.5	0.45～0.8	0.8	0.5 MAX	0
4	5.5	4.3	4.3	1.8	0.5～0.8	1.0	0.5 MAX	0
5	5.5	5.3	5.3	2.2	0.5～0.8	1.3	0.5 MAX	0
6.3	5.5	6.6	6.6	2.7	0.5～0.8	1.8	0.5 MAX	0
6.3	8	6.6	6.6	2.7	0.5～0.8	1.8	0.5 MAX	0
8	6.5	8.3	8.3	3.4	0.5～0.8	2.2	0.5 MAX	0
8	10.5	8.3	8.3	2.9	0.8～1.1	3.1	0.5 MAX	0
10	10.5	10.3	10.3	3.2	0.8～1.1	4.5	0.5 MAX	0
12.5	13.5	13	13	4.9	0.8～1.1	4.5	0.7±0.4	0.5
12.5	16	13	13	4.9	0.8～1.1	4.5	0.7±0.4	0.5
16	16.5	17	17	6	1.0～1.6	6.8	0.7±0.4	0.5
16	21.5	17	17	6	1.0～1.6	6.8	0.7±0.4	0.5
18	16.5	19	19	7	1.0～1.6	6.8	0.7±0.4	0.5
18	21.5	19	19	7	1.0～1.6	6.8	0.7±0.4	0.5

◆STANDARD SIZE, RATED RIPPLE CURRENT

Size φD×L(mm), Ripple Current (mA r.m.s./85℃, 120Hz)

WV(V.DC) / Cap(μF)	4 (0G)		6.3 (0J)		10 (1A)		16 (1C)		25 (1E)		35 (1V)		50 (1H)		63 (1J)		100 (2A)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1													3×5.5 4×5.5	1.0				
0.22													3×5.5 4×5.5	2.0				
0.33													3×5.5 4×5.5	2.8				
0.47													3×5.5 4×5.5	4.0				
1													3×5.5 4×5.5	8.0 8.4				
2.2											3×5.5	8.4	3×5.5 4×5.5	10 14				
3.3											3×5.5	10	4×5.5	17				
4.7							3×5.5	12	3×5.5 4×5.5	12 18	4×5.5	18	4×5.5 5×5.5	18 22			8×10.5	80
10							3×5.5 4×5.5	18 25	4×5.5	25	5×5.5	30	5×5.5 6.3×5.5	30 35			8×10.5	90
22	3×5.5	19	3×5.5 4×5.5	21 29			4×5.5 5×5.5	30 39			6.3×5.5	48	6.3×5.5 8×6.5	48 80	8×10.5	75	8×10.5	130
33	4×5.5	28			4×5.5 5×5.5	32 43	5×5.5	43	6.3×5.5	54	6.3×5.5	58	6.3×8 8×10.5	95 200	8×10.5	160	10×10.5	170
47	4×5.5	34	4×5.5 5×5.5	36 46			5×5.5 6.3×5.5	50 60	6.3×5.5	60	6.3×8 8×6.5	105 115	8×10.5 10×10.5	240 280	8×10.5	170	12.5×13.5	250
100	5×5.5	61	5×5.5 6.3×5.5	61 71	6.3×5.5	71	6.3×5.5 8×6.5	86 135	6.3×8 8×6.5	145 160	8×10.5 10×10.5	280 480	8×10.5 10×10.5	320 500	10×10.5	240	12.5×16	440
220	6.3×5.5	96	6.3×5.5	96	6.3×8 8×6.5	175 190	6.3×8 8×10.5	165 290	8×10.5 10×10.5	300 560	10×10.5	570	12.5×13.5	580	12.5×16	580	16×21.5 18×16.5	665
330			6.3×8 8×6.5	190 210	8×10.5	330	8×10.5 10×10.5	330 670	10×10.5	680			12.5×13.5	600	18×16.5	680	18×21.5	825
470	6.3× 8	200	8×10.5	380	8×10.5 10×10.5	380 680	8×10.5 10×10.5	385 690	12.5×13.5	700	12.5×13.5	700	16×16.5	740	16×21.5 18×16.5	850		
1000			10×10.5	700	12.5×13.5	710	12.5×13.5	720	12.5×16	820	16×16.5	1000	18×21.5	1150				
2200			12.5×16	890	12.5×16	960	16×16.5	1150	16×21.5 18×16.5	1350	18×21.5	1550						
3300			16×16.5	1200	16×16.5	1300	16×21.5 18×16.5	1450	18×21.5	1700								
4700			16×16.5	1400	16×21.5 18×16.5	1500	18×21.5	1750										
6800			16×21.5 18×16.5	1650	18×21.5	1850												
10000			18×21.5	2000														