

Aluminum Electrolytic Capacitors



CS Series

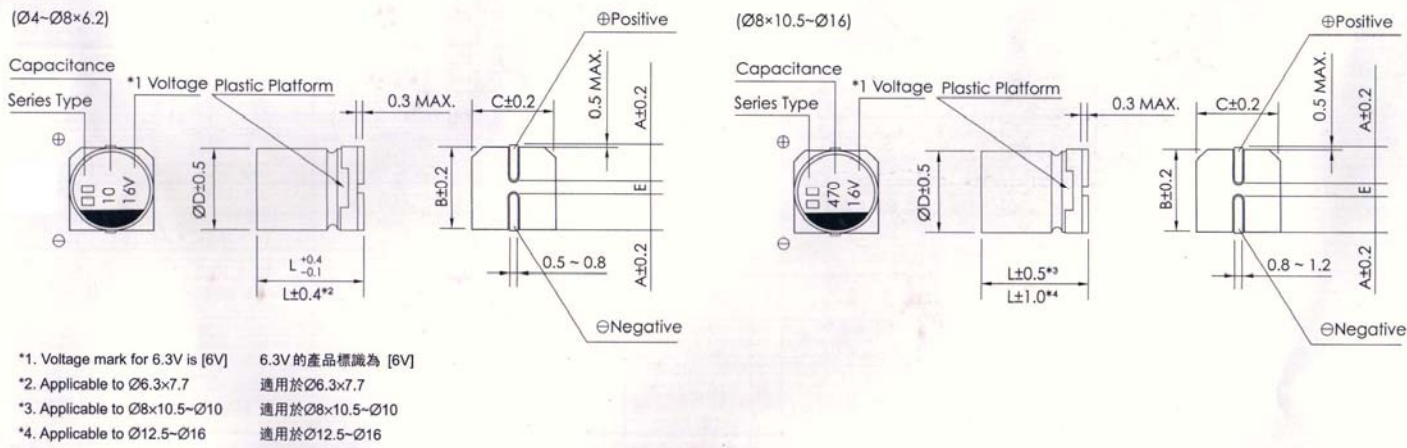
- Operating with wide temperature range - 40 ~ +85 °C
- Load life of 2000 hours
- Comply with the RoHS directive



SPECIFICATIONS

Item	Characteristics										
Operating Temperature Range	- 40 ~ +85℃										
Voltage Range	4 ~ 100 V.DC										
Nominal Cap. Range	0.1 ~ 6800 μ F										
Capacitance Tolerance	- 20% ~ + 20% (at 20℃, 120Hz)										
Leakage Current	Leakage current (Φ4~Φ10)≤0.01CV or 3uA,whichever is greater (after 2 minutes application of rated voltage) Leakage current (Φ12.5~Φ16)≤0.03CV or 4uA,whichever is greater (after 1 minute application of rated voltage)										
Dissipation Factor (tanδ) (at 120Hz, +20℃)	Measurement frequency:120Hz , Temperature:20℃										
	Rated Voltage (V)		4	6.3	10	16	25	35	50	63	100
	tanδ	Φ4~Φ10	0.35	0.26	0.20	0.16	0.14	0.12	0.12	0.10	0.10
Φ12.5~Φ16		0.42	0.38	0.34	0.30	0.26	0.22	0.18	0.14	0.10	
Stability at Low Temperature	Measurement frequency:120Hz										
	Rated Voltage (V)			4	6.3	10	16	25	35	50~100	
	Impedance Ratio	Φ4~Φ10	Z(- 25℃) / Z (+ 20℃	7	4	3	2	2	2	2	
			Z(- 40℃) / Z (+ 20℃)	15	8	6	4	4	3	3	
	ZT/Z20 (max.)	Φ12.5~Φ16	Z(- 25℃) / Z (+ 20℃	7	5	4	3	2	2	2	
Z(- 40℃) / Z (+ 20℃)	17		12	10	8	5	4	3			
Load Life	After 2000 hours application of the rated voltage at 85℃, they meet the characteristics listed below. at85℃.										
	Capacitance Change		Within ±20% of initial value (Within ±30% of initial value for 4V)								
	Dissipation Factor		200% or less of initial specified value								
	Leakage Current		initial specified value or less								
Shelf Life	After leaving capacitors under no load at 85℃ for 1000 hours, they meet the specified value for load life characteristics listed above.										
Resistance to Soldering Heat	After reflow soldering and restored at room temperature, they meet the characteristics listed below.										
	Capacitance Change		Within ±10% of initial value								
	Dissipation Factor		initial specified value or less								
	Leakage Current		initial specified value or less								
Marking	Black print on the case top.										

DRAWING (Unit: mm) 外形圖



Aluminum Electrolytic Capacitors

YUSCON®

CS Series

●DIMENSIONS(Unit:mm)

size(ΦDxL)	4×5.4	5×5.4	6.3×5.4	6.3×7.7	8×6.2	8×10.5	10×10.5	10×13.5	12.5×13.5	12.5×16	16×16.5
A	1.8	2.1	2.4	2.4	3.3	2.9	3.2	3.2	4.7	4.7	5.5
B	4.3	5.3	6.6	6.6	8.3	8.3	10.3	10.3	13.0	13.0	17.0
C	4.3	5.3	6.6	6.6	8.3	8.3	10.3	10.3	13.0	13.0	17.0
E±0.2	1.0	1.3	2.2	2.2	2.2	3.1	4.4	4.4	4.4	4.4	6.7
L	5.4	5.4	5.4	7.7	6.2	10.5	10.5	13.5	13.5	16.0	16.5

■DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV(Vdc) μF	4		6.3		10		16		25	
4.7									4X5.4	19
10							4X5.4	25	5X5.4 (4X5.4)	28 (20)
15							4X5.4	28	5X5.4	34
22			4X5.4	31	5X5.4 (4X5.4)	35 (28)	5X5.4 (4X5.4)	39 (28)	6.3X5.4 (5X5.4)	52 (35)
33	4X5.4	26	5X5.4 (4X5.4)	39 (31)	5X5.4 (4X5.4)	43 (32)	6.3X5.4 (5X5.4)	57 (40)	6.3X5.4 (5X5.4)	63 (42)
47	4X5.4	34	5X5.4 (4X5.4)	47 (36)	6.3X5.4 (5X5.4)	59 (43)	6.3X5.4 (5X5.4)	68 (44)	6.3X5.4	68
56	4X5.4	39	5X5.4	46	6.3X5.4	57	6.3X5.4	74	6.3X5.4	82
68	5X5.4	45	6.3X5.4 (5X5.4)	62 (52)	6.3X5.4	72	6.3X5.4	80	6.3X5.4	94
100	5X5.4	61	6.3X5.4 (5X5.4)	71 (55)	6.3X5.4	76	6.3X5.4 (8X6.2)	86 (200)	6.3X7.7 (8X6.2)	130 (91)
150	6.3X5.4	74	6.3X5.4	78	6.3X5.4	88	6.3X7.7	135	8X10.5 (6.3X7.7)	200 (130)
220	6.3X5.4	82	6.3X5.4	95	6.3X7.7 (8X6.2)	150 (250)	8X10.5 (6.3X7.7) (8X6.2)	215 (150) (135)	8X10.5	250
330	6.3X7.7	150	6.3X7.7 (8X6.2)	150 (300)	8X10.5	280	8X10.5	280	10X10.5 (8X10.5)	340 (310)
470	6.3X7.7	150	8X10.5 (6.3X7.7)	300 (150)	10X10.5 (8X10.5)	320 (300)	10X10.5 (8X10.5)	420 (330)	10X10.5	400
680	8X10.5	300	8X10.5	300	10X10.5	380	10X10.5	450	10X13.5	550
1000	8X10.5	330	10X10.5 (8X10.5)	430 (330)	10X10.5	450	12.5X13.5 (10X13.5) (10X10.5)	710 (550) (490)	12.5X13.5	820
1500	10X10.5	450	10X13.5 (10X10.5)	650 (450)	10X13.5	650	12.5X13.5	750	12.5X16	1000
2200	10X13.5 (10X10.5)	620 (480)	12.5X13.5 (10X13.5)	890 (720)	12.5X13.5	960	16X16.5 (12.5X16)	1150 (1000)	16X16.5	1250
3300	10X13.5	700	12.5X16 (12.5X13.5)	1000 (900)	16X16.5 (12.5X16)	1300 (1050)	16X16.5	1350		
4700	12.5X13.5	850	16X16.5	1400	16X16.5	1450				
6800	16X16.5 (12.5X16)	1350 (900)								

→ Rated Ripple Current (mA rms) at 85°C 120Hz

→ Case Size: ΦDxL (mm)

Aluminum Electrolytic Capacitors

YUSCON®

CS Series

■ DIMENSIONS MAXIMUM PERMISSIBLE RIPPLE CURRENT

VV(Vdc) μF		35		50		63		100	
0.1	0R1			4X5.4	1	4X5.4	1.0		
0.22	R22			4X5.4	2.3	4X5.4	2.3		
0.33	R22			4X5.4	3.5	4X5.4	3.5		
0.47	R47			4X5.4	5	4X5.4	5.0		
1	1R0			4X5.4	10	4X5.4	10	4X5.4	10
1.5	1R5			4X5.4	12	4X5.4	12	6.3X5.4	15
2.2	2R2			4X5.4	15	4X5.4	15	6.3X5.4	20
3.3	3R3	4X5.4	18	4X5.4	18	5X5.4	20	6.3X7.7 (6.3X5.4) (8X6.2)	45 (28) (50)
4.7	4R7	4X5.4	20	5X5.4 (4X5.4)	23 (19)	6.3X5.4 (5X5.4)	30 (23)	6.3X7.7 (6.3X5.4) (8X6.2)	50 (30) (50)
10	100	5X5.4 (4X5.4)	30 (20)	6.3X5.4 (5X5.4)	34 (27)	6.3X7.7 (6.3X5.4)	55 (34)	8X10.5 (6.3X7.7) (8X6.2)	110 (50) (50)
22	220	6.3X5.4	54	6.3X5.4 (8X6.2)	60 (120)	8X10.5 (6.3X7.7) (8X6.2)	140 (70) (35)	10X10.5 (8X10.5)	180 (120)
33	330	6.3X5.4 (8X6.2)	60 (130)	6.3X7.7 (8X6.2)	85 (65)	8X10.5 (6.3X7.7)	160 (85)	10X10.5	190
47	470	6.3X5.4 (8X6.2)	70 (165)	10X10.5 (8X10.5) (6.3X7.7)	130 (110) (90)	10X10.5 (8X10.5)	230 (170)		
56	560	6.3X7.7	80	6.3X7.7	110	10X10.5	250		
68	680	6.3X7.7	110	8X10.5	170	10X10.5	260		
100	101	8X10.5 (6.3X7.7)	175 (120)	10X10.5 (8X10.5)	240 (200)	12.5X13.5 (10X13.5) (10X10.5)	380 (290) (280)	12.5X13.5	440
150	151	8X10.5	220	10X10.5	240	10X13.5	310		
220	221	10X10.5 (8X10.5)	310 (270)	10X13.5 (10X10.5)	400 (320)	12.5X13.5 (10X13.5)	580 (330)	16X16.5	700
330	331	10X10.5	350	12.5X13.5 (10X13.5)	600 (420)	16X16.5 (12.5X16)	820 (720)		
470	471	12.5X13.5 (10X13.5) (10X10.5)	600 (530) (400)	16X16.5 (12.5X16)	850 (740)	16X16.5	950		
680	681	12.5X13.5 (10X13.5)	750 (560)	16X16.5	950				
1000	102	16X16.5 (12.5X16)	1100 (800)						

→ Rated Ripple Current (mA Arms) at 85°C 120Hz
→ Case Size: ΦDxL (mm)

FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT

Frequency		50HZ	120HZ	300HZ	1KHZ	10KHZ
Coefficient	Φ4.Φ10	0.1~68uF	0.70	1.00	1.17	1.36
		100~3300uF	0.85	1.00	1.08	1.2
	Φ12.5.Φ16	~68uF	0.75	1.00	1.35	1.57
		100~680uF	0.80	1.00	1.23	1.34
		1000~6800uF	0.85	1.00	1.1	1.13