

CB series

SMD Chip Aluminum Electrolytic Capacitor



◆ Features

- » 105°C 1000~2000 hours assured
- » Lead free reflow soldering is available
- » General Purpose

◆ Part Number

mm

CB	336	M	100	- 0405
Series	Series	Tolerance	Voltage	Size
CB	33uF=336	±20%=M	10V=100	4x5.4
	470uF=477		16V=160	8x10.2
	100uF=107		25V=250	8x10.2

◆ Specification

Test Item	Performance														
Operating Temperature Range	-40 to +105°C														
Capacitance Tolerance	±20%(120Hz, +20°C)														
Surge Voltage(V) (20°C)	WV	4	6.3	10	16	25	35	50	63	100	160	200	250	400	450
	SV	5	8	13	20	32	44	63	79	125	200	250	300	450	500
Leakage Current (at 20°C)	4~100V	4~10Ø			I=0.01CV or 3 μA, whichever is greater, after 2 minutes at +20°C										
		12.5~16Ø			I=0.03CV or 4 μA, whichever is greater, after 1 minutes at +20°C										
	160~450V	12.5~16Ø			I=0.04cv +100 μA after 1 minutes at +20°C										
Where I=leakage current, C=rated capacitance in μF, V=rated DC working voltage in V															
Dissipation Factor (Tan δ at 120Hz, 20°C)	Shown in the table of standard rating														
Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below.														
	Rated Voltage(v)			4	6.3	10	16	25	35	50	63	100	160-250	400-450	
	Impedance Ratio	Z (-25°C) /Z(+20°C)	4~10Ø	7	4	3	2	2	2	2	2	3	-	-	
			12.5~16Ø	-	5	4	3	2	2	2	2	2	3	6	
		Z (-40°C) /Z(+20°C)	4~10Ø	15	12	8	6	4	3	3	3	4	-	-	
12.5~16Ø			-	10	8	6	4	3	3	3	3	6	10		
Load Life Test	Test Time				1000~2000 Hrs										
	Case code				4~6.3Ø						8~16Ø				
	Capacitance Change				Within ±25% of initial value						Within ±20% of initial value				
	Dissipation Factor				Less than 200% of specified value						Less than 200% of specified value				
	Leakage Current				Within specified value						Within specified value				
* The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied with rated ripple current for 2000hours at 105°C															
Shelf Life Test	Without Voltage Test time:1000 hrs; other items are the same as those for the load life test.														

◆ **Diagram of Dimensions: (Unit: mm)**

Fig 1

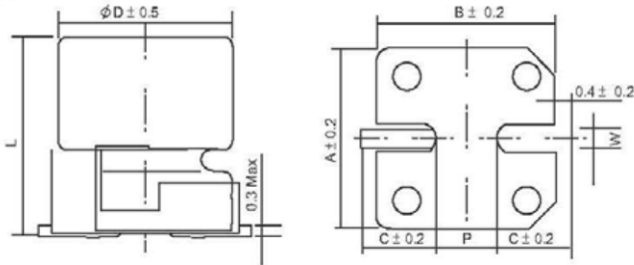
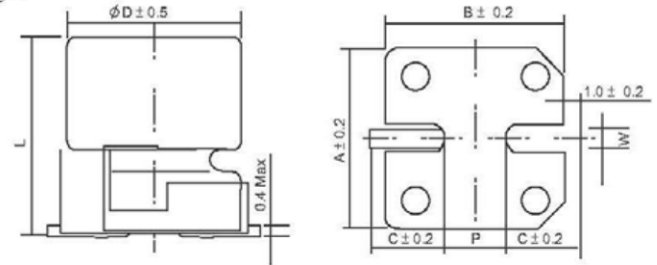


Fig 2



ϕD	L	A	B	C	W	P	Fig No.
4	5.4 ±0.3	4.3	4.3	2.0	0.5~0.8	1.0	1
5	5.4 ±0.3	5.3	5.3	2.3	0.5~0.8	1.5	1
6.3	5.4 ±0.3	6.6	6.6	2.7	0.5~0.8	2.0	1
6.3	7.7 ±0.3	6.6	6.6	2.7	0.5~0.8	2.0	1
8	6.2 ±0.5	8.3	8.3	3.4	0.5~0.8	2.2	1
8	10.2 ±0.5	8.3	8.3	3.4	0.7~1.1	3.1	1
10	10.2 ±0.5	10.4	10.4	3.3	0.7~1.1	4.6	1
12.5	13.5 ±0.5	12.8	12.8	4.9	1.1~1.4	4.6	2
12.5	16 ±0.5	12.8	12.8	4.9	1.1~1.4	4.6	2
16	16.5 ±0.5	16.3	16.3	5.8	1.8~2.2	6.0	2

◆ **Multiplier For Ripple Current VS, Frequency**

Cap. Freq.(Hz)		50(60)	120	500	1K	10K UP
Multiplier	0.1uF~47uF	0.8	1.0	1.2	1.3	1.5
	68uF up	0.8	1.0	1.1	1.15	1.2

◆ Case Size

WV	Cap (uF)	Size (mm) φ DxL	Tolerance (%)	DF (%) (max) 120Hz, 20°C	R.C. (mA, rms) (max) 120Hz, 85°C
4	22	4x5.4	±20	0.35	20
	33	4x5.4	±20	0.35	26
	47	4x5.4	±20	0.35	34
	100	5x5.4	±20	0.35	61
	220	6.3x5.4	±20	0.35	68
6.3	22	4x5.4	±20	0.35	29
	33	4x5.4	±20	0.35	43
	47	5x5.4	±20	0.35	46
	100	6.3x5.4	±20	0.35	71
	220	6.3x7.7	±20	0.35	120
		8x6.2	±20	0.35	130
	330	8x10.2	±20	0.35	230
	470	8x10.2	±20	0.35	250
		10x10.2	±20	0.35	260
	1000	10x10.2	±20	0.35	380
	2200	12.5x13.5	±20	0.40	680
	3300	12.5x16	±20	0.40	850
	4700	16x16.5	±20	0.40	1000
6800	16x16.5	±20	0.40	1000	
10	22	4x5.4	±20	0.30	25
	33	4x5.4	±20	0.30	40
	47	6.3x5.4	±20	0.30	50
	100	6.3x5.4	±20	0.30	70
		8x6.2	±20	0.30	75
	220	6.3x7.7	±20	0.30	120
		8x6.5	±20	0.30	120
		8x10.2	±20	0.26	125
	330	8x10.2	±20	0.26	230
		10x10.2	±20	0.26	240
	470	8x10.2	±20	0.26	260
		10x10.2	±20	0.26	300
	1000	10x10.2	±20	0.26	390
	2200	12.5x16	±20	0.38	750
	3300	16x16.5	±20	0.38	1000
4700	16x16.5	±20	0.38	1000	
16	10	4x5.4	±20	0.22	17
	22	5x5.4	±20	0.22	30
	33	6.3x5.4	±20	0.22	45
	47	6.3x5.4	±20	0.22	48
	100	6.3x5.4	±20	0.22	69
		6.3x7.7	±20	0.22	74
		8x6.2	±20	0.22	80
		8x10.2	±20	0.22	85
		220	6.3x7.7	±20	0.22
	10x10.2		±20	0.22	210
	330		8x10.2	±20	0.22
		10x10.2	±20	0.22	245
	470	8x10.2	±20	0.22	280
		10x10.2	±20	0.22	320
	1000	12.5x13.5	±20	0.34	550
	2200	16x16.5	±20	0.34	950
	3300	16x16.5	±20	0.34	950

WV	Cap (uF)	Size (mm) φ DxL	Tolerance (%)	DF (%) (max) 120Hz, 20°C	R.C. (mA, rms) (max) 120Hz, 85°C	
25	4.7	4x5.4	±20	0.16	13	
	10	5x5.4	±20	0.16	23	
	22	6.3x5.4	±20	0.16	38	
	33	6.3x5.4	±20	0.16	50	
	47	6.3x5.4	6.3x5.4	±20	0.16	60
			6.3x7.7	±20	0.16	65
			8x6.2	±20	0.16	67
	100	6.3x7.7	±20	0.16	100	
		8x10.2	±20	0.16	105	
	220	8x10.2	±20	0.16	230	
		10x10.2	±20	0.16	273	
	330	10x10.2	±20	0.16	340	
470	10x10.2	±20	0.16	470		
1000	12.5x16	±20	0.26	550		
2200	16x16.5	±20	0.26	820		
35	4.7	4x5.4	±20	0.14	16	
	10	5x5.4	±20	0.14	27	
	22	6.3x5.4	±20	0.14	44	
	33	6.3x5.4	6.3x5.4	±20	0.14	54
			6.3x7.7	±20	0.14	57
			8x6.2	±20	0.14	60
	47	8x10.2	±20	0.14	80	
		10x10.2	±20	0.14	88	
	100	8x10.2	±20	0.14	140	
		10x10.2	±20	0.14	190	
	220	10x10.2	±20	0.14	360	
	330	10x10.2	±20	0.14	450	
470	12.5x13.5	±20	0.22	520		
1000	16x16.5	±20	0.22	750		
50	0.1	4x5.4	±20	0.12	1	
	0.22	4x5.4	±20	0.12	2	
	0.33	4x5.4	±20	0.12	3	
	0.47	4x5.4	±20	0.12	5	
	1	4x5.4	±20	0.12	10	
	2.2	4x5.4	±20	0.12	16	
	3.3	4x5.4	±20	0.12	16	
	4.7	5x5.4	±20	0.12	20	
	10	6.3x5.4	±20	0.12	32	
	22	6.3x5.4	6.3x5.4	±20	0.12	40
			6.3x7.7	±20	0.12	47
			8x6.2	±20	0.12	52
			6.3x7.7	±20	0.12	65
	33	8x10.2	±20	0.12	70	
		8x10.2	±20	0.12	80	
	47	10x10.2	±20	0.12	100	
		8x10.2	±20	0.12	210	
	100	10x10.2	±20	0.12	230	
10x10.2		±20	0.14	375		
220	10x10.2	±20	0.14	500		
330	12.5x13.5	±20	0.14	550		
470	12.5x16	±20	0.14	550		

WV	Cap (uF)	Size (mm) φ DxL	Tolerance (%)	DF (%) (max) 120Hz, 20°C	R.C. (mA, rms) (max) 120Hz, 85°C	
63	0.47	4x5.4	±20	0.12	5	
	1	4x5.4	±20	0.12	8	
	2.2	4x5.4	±20	0.12	12	
	3.3	4x5.4	±20	0.12	17	
	4.7	6.3x5.4	±20	0.12	22	
	10	6.3x5.4	±20	0.12	32	
	22	33	6.3x7.7	±20	0.12	58
			8x10.2	±20	0.12	60
	47	100	8x10.2	±20	0.12	100
			10x10.2	±20	0.12	130
	100	220	8x10.2	±20	0.12	140
			10x10.2	±20	0.12	170
	330	470	10x10.2	±20	0.12	310
			12.5x13.5	±20	0.14	470
160	100	16x16.5	±20	0.14	700	
		16x16.5	±20	0.14	700	
100	10	8x10.2	±20	0.12	55	
	22	8x10.2	±20	0.12	90	
		10x10.2	±20	0.12	100	
	33	10x10.2	±20	0.12	150	
	47	12.5x13.5	±20	0.14	250	
	100	12.5x13.5	±20	0.14	380	
160	220	16x16.5	±20	0.14	450	
	33	12.5x13.5	±20	0.20	95	
	47	12.5x16	±20	0.20	110	
200	100	16x16.5	±20	0.20	190	
	10	12.5x13.5	±20	0.20	80	
	22	12.5x13.5	±20	0.20	90	
	33	12.5x16	±20	0.20	110	
250	47	16x16.5	±20	0.20	220	
	3.3	12.5x13.5	±20	0.20	65	
	4.7	12.5x13.5	±20	0.20	68	
	10	12.5x13.5	±20	0.20	72	
	22	12.5x13.5	±20	0.20	90	
	33	16x16.5	±20	0.20	150	
400	47	16x16.5	±20	0.20	180	
	4.7	12.5x13.5	±20	0.25	50	
	10	12.5x13.5	±20	0.25	65	
450	22	16x16.5	±20	0.25	85	
	3.3	12.5x13.5	±20	0.25	40	
	4.7	12.5x13.5	±20	0.25	50	
	10	12.5x16	±20	0.25	55	
22	16x16.5	±20	0.25	85		