D01 Aluminum Electrolytic Capacitor-SMD

ROHS

FEATURES

Designed for surface mounting on high density circuit board. ·

Emboss carrier tape packing system is available for automatic insertion.

RATING AND CHARACTERISTIC

Operating Temperature Range -40℃~ +85℃

Voltage Range 4~100V

Capacitance Range 0.1~10000μF

Capacitance Tolerance ±20% at 120Hz, 20℃

Leakage current(φ4~φ10)≤0.01CV or 3μA,, whichever is greater.(After 2 minutes' application of rated voltage)

Leakage current(φ12.5~φ16)≤0.03CV or 4μA,, whichever is greater.(After 1 minutes' application of rated voltage)

Tan δ Measurement frequency : 120Hz, Temperature : 20℃

Rated voltage (V)		4	6.3	10	16	25	35	50	63	100
Tan δ (MAX)	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 ZT / Z20 (MAX)	φ4~φ10	Z-25℃ / Z+20℃	7	4	3	2	2	2	2
		Z-40℃ / Z+20℃	15	8	6	4	4	3	3
	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 rated voltage at 85℃, capacitors meet the characteristics requirements listed at right

Capacitance Change	Within ± 20% of initial value (Within ± 25% of initial value for 4V)
Tan δ	200% or less of initial specified value
Leakage Current	Initial specified value or less

Self Life After leaving capacitors under no load at 85℃ for 1000 hours, they meet the specified value for load life characteristics listed above.

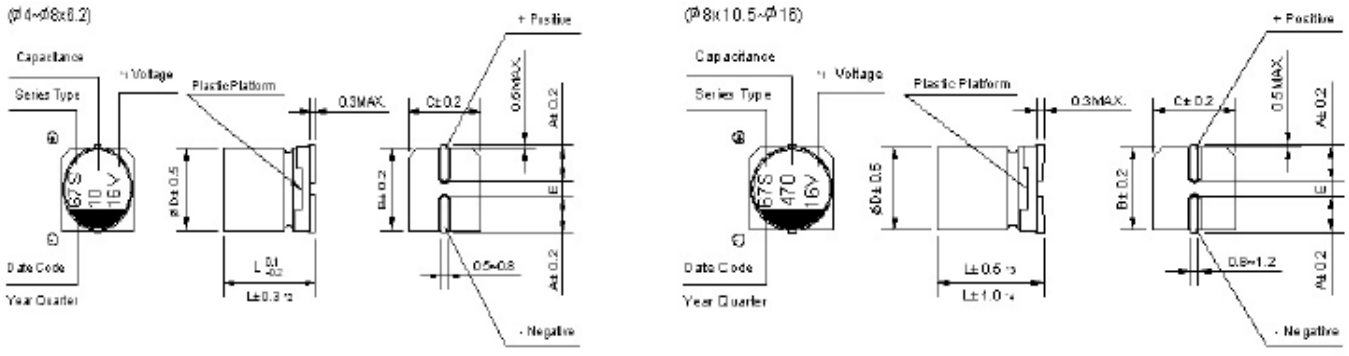
Resistance to Soldering Heat

The capacitors shall be kept on the hot plate maintained at 250℃ for 30 seconds.

After removing from the hot plate and restored at room temperature, they meet the characteristics requirements listed at right.

Capacitance Change	Within ± 10% of initial value
Tan δ	Initial specified value or less
Leakage Current	Initial specified value or less

Applicable Standards JIS C-5141 and JIS C-5102.



1 Voltage mark [6V] represents 6.3V for Φ4~Φ10;

*2 [Lt0.3] is applicable to Φ6.3x7.7 and Φ8x6.2;

*3 [Lt0.5] is applicable to Φ8x10.5~Φ10;

*4 [Lt1.0] is applicable to Φ12.5~Φ16.

Re: Date code and series type — 1st digit for Year;
2nd digit for Quarter, 4 quarter codes in one year are 1, 4, 7, O;
3rd character for Series; BS Series = B

(mm)

ØDxL	4x5.4	5x5.4	6.3x5.4	8x6.2	6.3x7.7	8x10.5	10x10.5/13.5	12.5x13.5	12.5x16	16x16.5/21.5
A	1.8	2.1	2.4	3.3	2.4	2.9	3.2	4.7	4.7	5.5
B	4.3	5.3	6.6	8.3	6.6	8.3	10.3	13.0	13.0	17.0
C	4.3	5.3	6.6	8.3	6.6	8.3	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	6.7
L	5.4	5.4	5.4	6.2	7.7	10.5	10.5/13.5	13.5	16.0	16.5/21.5

Standard size & Maximum permissible ripple current

WV Cap.	4		6.3		10		16		25	
(μF)	0G		0J		1A		1C		1E	
4.7										
4.7	--	--	--	--	--	--	--	--	--	--
10	--	--	--	--	--	--	4×5.4	25	5×5.4 (4×5.4)	28 (20)
15	--	--	--	--	--	--	4×5.4	28	5×5.4	34
22	--	--	4×5.4	31	5×5.4 (4×5.4)	35 (28)	5×5.4 (4×5.4)	39 (28)	6.3×5.4 (5×5.4)	52 (35)
33	4×5.4	26	5×5.4 (4×5.4)	39 (31)	5×5.4 (4×5.4)	43 (32)	6.3×5.4 (5×5.4)	57 (40)	6.3×5.4 (5×5.4)	63 (42)
47	4×5.4	34	5×5.4 (4×5.4)	47 (36)	6.3×5.4 (5×5.4)	59 (43)	6.3×5.4 (5×5.4)	68 (44)	6.3×5.4	68
56	4×5.4	39	5×5.4	46	6.3×5.4	57	6.3×5.4	74	6.3×5.4	82
68	5×5.4	45	6.3×5.4 (5×5.4)	62 (52)	6.3×5.4	72	6.3×5.4	80	6.3×5.4	94
100	5×5.4	61	6.3×5.4 (5×5.4)	71 (55)	6.3×5.4	76	6.3×5.4 8 X 6.2	86 200	6.3×7.7 8 x 6.2	130 91
150	6.3×5.4	74	6.3×5.4	78	6.3×5.4	88	6.3×7.7	135	8×10.5 6.3 x 7.7	200 130
220	6.3×5.4	82	6.3×5.4	95	6.3×7.7 8 X 6.2	150 250	8×10.5 (6.3×7.7) 8 X 6.2	215 (150) 135	8×10.5	250
330	6.3×7.7	150	6.3×5.4 6.3 X 7.7 8 X 6.2	150 300	8×10.5	280	8×10.5	280	10×10.5 (8×10.5)	340 (310)
470	6.3×7.7	150	8×10.5 6.3 X 7.7	300 150	8×10.5 10 X 10.5	300 320	10×10.5 (8×10.5)	420 (330)	10×10.5	400
680	8×10.5	300	8×10.5	300	10×10.5	380	10×10.5	450	10X13.5	550
1000	8×10.5	330	10×10.5 (8×10.5)	430 (330)	10×10.5	450	10×10.5 12.5x13.5 10x13.5	490 710 550	12.5X13.5	820
1500	10×10.5	450	10×10.5 10 X 13.5	450 650	10 X 13.5	650	12.5x13.5	750	12.5X16	1000
2200	10x13.5 10×10.5	620 480	12.5x13.5 10x13.5	890 720	12.5x13.5	960	16x16.5 12.5x16	1150 1000	16X16.5 16x21.5	1250 1450
3300	10x13.5	700	12.5x16 12.5x13.5	1000 900	16x16.5 12.5x16	1300 1050	16x16.5 16x21.5	1350 1450	16x21.5	1650
4700	12.5x13.5	850	16x16.5	1400	16x16.5	1450	16x21.5	1650		
6800	16x16.5 12.5x16	1350 900	16x21.5	1750	16x21.5	1850				
10000	16x21.5	1750	16x21.5	1800					Case Size	Ripple Current

Standard size & Maximum permissible ripple current

WV Cap.	35		50		63		100	
(μF)	1V		1H		1J		2A	
0.1	--	--	4×5.4	1.0	4×5.4	1.0	--	--
0.22	--	--	4×5.4	2.3	4×5.4	2.3	--	--
0.33	--	--	4×5.4	3.5	4×5.4	3.5	--	--
0.47	--	--	4×5.4	5.0	4×5.4	5.0	--	--
1	--	--	4×5.4	10	4×5.4	10	4×5.4	10
1.5	--	--	4×5.4	12	4×5.4	12	6.3×5.4	15
2.2	--	--	4×5.4	15	4×5.4	15	6.3×5.4	20
3.3	--	--	4×5.4	18	5×5.4	20	6.3×7.7 (6.3×5.4) (8 X 6.2)	45 (28) (50)
4.7	--	--	5×5.4 (4×5.4)	23 (19)	6.3×5.4 (5×5.4)	30 (23)	6.3×7.7 (6.3×5.4) (8 X 6.2)	50 (30) (50)
10	5×5.4 (4×5.4)	30 (20)	6.3×5.4 (5×5.4)	34 (27)	6.3×7.7 (6.3×5.4)	55 (34)	8×10.5 (6.3×7.7) (8 X 6.2)	110 (50) (50)
22	6.3×5.4	54	6.3×5.4 (8 X 6.2)	60 (120)	8×10.5 6.3×7.7	140 (70)	10×10.5 (8×10.5)	180 (120)
33	6.3×5.4 8 X 6.2	60 130	6.3×7.7 (8 X 6.2)	85 (65)	8×10.5 (6.3×7.7)	160 (85)	10×10.5	190
47	6.3×5.4 8 X 6.2	70 165	6.3×7.7 10×10.5 (8×10.5)	90 130 (110)	10×10.5 (8×10.5)	230 (170)	10×10.5	
56	6.3×7.7	80	6.3×7.7	110	10×10.5	250	--	--
68	6.3×7.7	110	8×10.5	170	10×10.5	260	--	--
100	8×10.5 (6.3×7.7)	175 (120)	8×10.5 10×10.5	200 240	10×10.5 12.5X13.5 10X13.5	280 380 290	12.5X13.5	440
150	8×10.5	220	10×10.5	240	10 x 13.5	310	--	--
220	10×10.5 (8×10.5)	310 (270)	10×10.5 10×13.5	320 400	12.5X13.5 10X13.5	580 330	16X16.5 16x21.5	700 850
330	10×10.5	350	12.5X13.5 10X13.5	600 420	16X16.5 12.5X16	820 720	16x21.5	900
470	10×10.5 12.5X13.5 10X13.5	400 600 530	16X16.5 12.5X16	850 740	16X16.5	950		
680	12.5X13.5 10X13.5	750 560	16X16.5	950	16x21.5	1000	Case size	llowable ripple
1000	16X16.5 12.5X16	1100 800	16x21.5	1300	16x21.5	1000		
2200	16x21.5	1550						

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	1.50
		100~3300u	0.85	1.00	1.08	1.2	1.30
	φ12.5~φ16	~68 uF	0.75	1.00	1.35	1.57	2.00
		100~680 u	0.80	1.00	1.23	1.34	1.5
		1000~1000	0.85	1.00	1.1	1.13	1.15