EV Series

Features

- ◆ Chip type long life capacitance in large case sizes
- ◆ Chip type with Endurance of 1000 hours at +105℃
- ◆ Designed for surface mounting on high density PC board
- ◆ Applicable to automatic insertion machine using carrier tape
- ◆ ROHS Compliant
- ◆ AEC-Q200 qualified

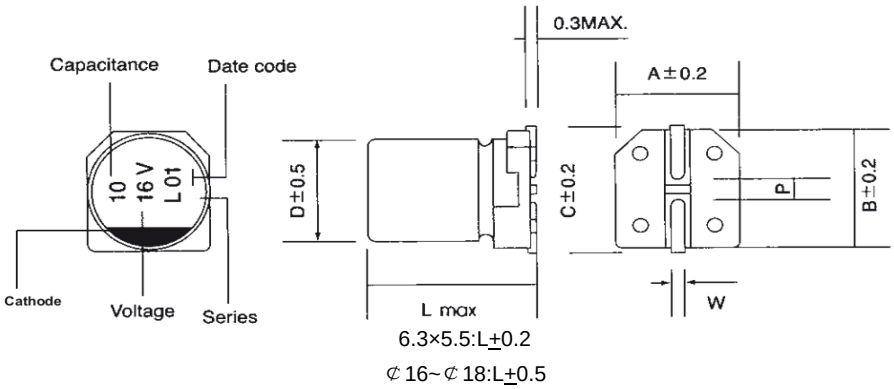
Specifications

Item	Performance Characteristics
Operating Temperature Range	-55~ +105℃
Rated Voltage Range	6.3~50 VDC
Capacitance Range	0.1 to 1500μF
Capacitance Tolerance	±20%(120Hz,+20℃)
Leakage Current (+20℃,max.)	I≦0.01 CV or 3 (μA) After 2 minutes whichever is greater measured with rated working voltage applied.
Dissipation Factor (tanδ，at 20℃，120Hz)	Working voltage(VDC): 6.3 / 10 / 16 / 25 / 35 / 50 D.F.(%)max Φ4~6.3: 30 / 24 / 20 / 18 / 16 / 14 D.F.(%)max Φ8~10: 35 / 28 / 24 / 18 / 16 / 14
Low Temperature Characteristics (at 120Hz)	Impedance ratio max Rated voltage(VDC): 6.3 / 10 / 16 / 25 / 35 / 50 Z-25℃ / Z+20℃: 4 / 3 / 2 / 2 / 2 / 2 Z-40℃ / Z+20℃: 8 / 8 / 4 / 4 / 3 / 3
Endurance	Test conditions Duration time : 1000Hrs Ambient temperature :+105℃ Applied voltage :Rated DC working voltage After test requirement at +20℃: Capacitance change :Within ±25% of the initial value for capacitance of 16V or less :Within ±20% of the initial value for capacitance of 25V or more Dissipation factor :Less than 200% of specified value Leakage current :Less than specified value
Shelf Life	Test conditions Duration time :1000 Hrs Ambient temperature :+105℃ Applied voltage :None After test requirement at +20℃ : Same limits as Endurance. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.
Resistance to soldering heat	The capacitors shall be kept on the hot plate maintained at 250℃ for 30 seconds.After removing form the hot plate and restored at room temperature,they meet the characteristic requriements listed under. Leakage: Less than specified value Capacitance: Within ±10% of initial value tanδ: Less than specified value

Multiplier for Ripple Current vs. Frequency

CAP(μF)＼Frequency(Hz)	60(50)	120	500	1K	≥10K
0.1≤CAP≦100μF	0.80	1.00	1.20	1.30	1.50
10＜CAP≤1500μF	0.80	1.00	1.10	1.15	1.20

Diagram of Dimensions:(unit:mm)

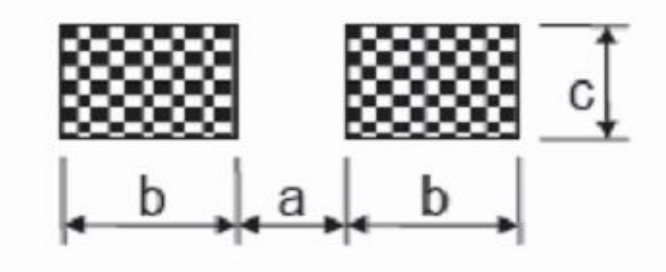


6.3×5.5:L±0.2

⌀16~⌀18:L±0.5

φD	L	A	B	C	W	P
4	5.5	4.3	4.3	4.9	0.5~0.8	1.0
5	5.5	5.3	5.3	5.9	0.5~0.8	1.4
6.3	5.5	6.6	6.6	7.2	0.5~0.8	2.2
6.3	7.7	6.6	6.6	7.2	0.5~0.8	2.2
8	6.5	8.3	8.3	9.0	0.5~0.8	2.3
8	10.5	8.3	8.3	9.0	0.7~1.1	3.1
10	10.5	10.3	10.3	11.0	0.7~1.1	4.5
12.5	14	13.0	13.0	13.9	1.0~1.4	4.5
16	17	17.1	17.1	18.0	1.0~1.4	7.0
16	21.5	17.1	17.1	18.0	1.0~1.4	7.0
18	16.5	19.1	19.1	20.0	1.0~1.4	7.5
18	21.5	19.1	19.1	20.0	1.0~1.4	7.5

Recommended land pattern:(unit:mm)



ΦDxL	a	b	c
4 x all	1	2.6	1.6
5 x all	1.4	3	1.6
6.3 x all	2.1	3.5	1.6
8 x 6.5(height ≤6.5)	2.1	4.5	1.6
8 x 6.5(height>6.5)	2.8	4.2	1.9
10 x all	4.3	4.4	1.9
12.5 x all	4.3	5.8	2.5
16 x all	6	6.5	3.5
18 x all	6	7.5	3.5

CapXon

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Case Size

WV (Vdc)	Cap (uF)	Size mm	Rated Ripple current (mArms/105℃ /120Hz)
6.3	22	4×5.5	22
6.3	33	4×5.5	30
6.3	47	4×5.5	36
6.3	100	5×5.5	60
6.3	150	6.3×5.5	86
6.3	220	6.3×5.5	89
6.3	220	6.3×7.7	102
6.3	220	8×6.5	102
6.3	330	6.3×7.7	105
6.3	330	8×6.5	105
6.3	470	8×10.5	210
6.3	1000	8×10.5	202
6.3	1000	10×10.5	230
6.3	1500	10×10.5	310
10	22	4×5.5	27
10	33	4×5.5	25
10	33	5×5.5	40
10	47	5×5.5	46
10	100	5×5.5	52
10	100	6.3×5.5	60
10	150	6.3×5.5	86
10	220	6.3×7.7	105
10	220	8×6.5	105
10	330	8×10.5	195
10	470	8×10.5	210
10	1000	10×10.5	310
16	10	4×5.5	18
16	22	4×5.5	30
16	33	5×5.5	40
16	47	5×5.5	51
16	100	6.3×5.5	60
16	150	6.3×7.7	95
16	150	8×6.5	95
16	220	6.3×7.7	105
16	330	8×10.5	195
16	470	8×10.5	210
25	4.7	4×5.5	16
25	10	4×5.5	26
25	22	5×5.5	38
25	33	5×5.5	48
25	47	6.3×5.5	63
25	100	6.3×7.7	91
25	100	8×6.5	91
25	150	8×10.5	140
25	220	8×10.5	155
25	330	8×10.5	175
25	330	10×10.5	198
25	470	10×10.5	300
35	4.7	4×5.5	16
35	10	4×5.5	27
35	22	5×5.5	37
35	22	6.3×5.5	42
35	33	6.3×5.5	50

WV (Vdc)	Cap (uF)	Size mm	Rated Ripple current (mArms/105℃ /120Hz)
35	33	6.3×7.7	58
35	47	6.3×5.5	58
35	47	6.3×7.7	66
35	100	6.3×7.7	84
35	100	8×6.5	84
35	150	8×10.5	155
35	220	8×10.5	167
35	220	10×10.5	190
35	330	10×10.5	300
50	0.1	4×5.5	1
50	0.22	4×5.5	2.6
50	0.33	4×5.5	3.2
50	0.47	4×5.5	3.8
50	1	4×5.5	6.3
50	2.2	4×5.5	11
50	3.3	4×5.5	14
50	4.7	4×5.5	19
50	4.7	5×5.5	22
50	10	5×5.5	29
50	10	6.3×5.5	33
50	22	6.3×5.5	51
50	33	6.3×7.7	60
50	33	8×6.5	60
50	47	6.3×7.7	66
50	47	8×6.5	66
50	100	8×10.5	140
50	150	10×10.5	180
50	220	10×10.5	220