

V-CHIP ALUMINUM ELECTROLYTIC CAPACITORS 片式铝电解电容器

EL Long Life Assurance Series

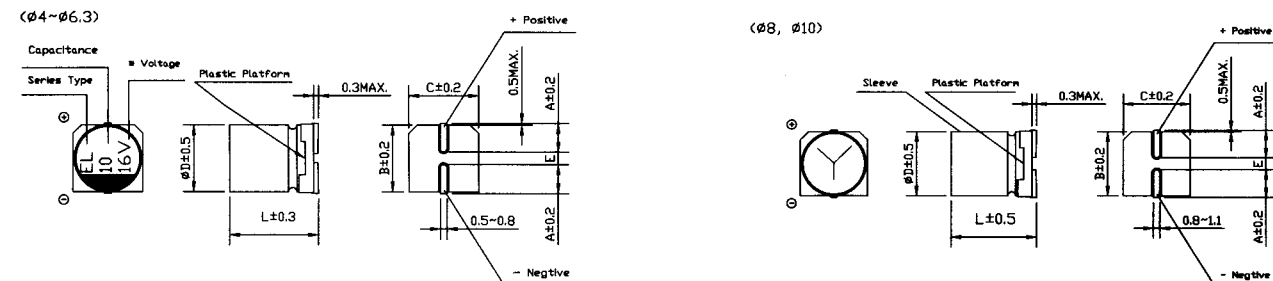
- Chip type, with load life of 2000 hours, temperature range up to +105°C.
- Designed for surface mounting on high density circuit board.
- Emboss carrier tape packing system is available for automatic insertion.



◆ Specifications

Items	Performance Characteristics																						
Operating Temperature Range	-55~+105°C																						
Voltage Range	6.3~50V																						
Capacitance Range	0.1~1000μF																						
Capacitance Tolerance	±20% at 120Hz, 20°C																						
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3μA, whichever is greater.																						
Tan δ	Measurement frequency: 120Hz, Temperature: 20°C <table border="1"> <tr> <td>Rated voltage(V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>Tan δ (max)</td> <td>0.28</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.13</td> <td>0.12</td> </tr> </table>	Rated voltage(V)	6.3	10	16	25	35	50	Tan δ (max)	0.28	0.24	0.20	0.16	0.13	0.12								
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Stability at Low Temperature	Measurement frequency:120Hz <table border="1"> <tr> <td>Rated voltage(V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td rowspan="2">Impedance ratio ZT/Z20(max)</td> <td>Z-25°C/Z+20°C</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>8</td> <td>5</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>	Rated voltage(V)	6.3	10	16	25	35	50	Impedance ratio ZT/Z20(max)	Z-25°C/Z+20°C	3	3	2	2	2	2	Z-40°C/Z+20°C	8	5	4	3	3	3
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Load Life	After 2000 hours' application of rated voltage at 105°C, capacitors meet the characteristics requirements listed at right <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ± 25% of initial value</td> </tr> <tr> <td>Leakage Current</td> <td>Initial specified value or less</td> </tr> <tr> <td>Tan δ</td> <td>200% or less of initial specified value</td> </tr> </table>	Capacitance Change	Within ± 25% of initial value	Leakage Current	Initial specified value or less	Tan δ	200% or less of initial specified value																
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Self Life	After leaving capacitors under no load at 105°C 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°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the characteristics requirements listed at right. <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ± 10% of initial value</td> </tr> <tr> <td>Tan δ</td> <td>Initial specified value or less</td> </tr> <tr> <td>Leakage Current</td> <td>Initial specified value or less</td> </tr> </table>	Capacitance Change	Within ± 10% of initial value	Tan δ	Initial specified value or less	Leakage Current	Initial specified value or less																
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Applicable Standards	JIS C-5141 and JIS C-5102																						

◆ Chip Type



* Voltage mark for 6.3V is [6V]

	(mm)					
φD×L	4 × 5.8	5 × 5.8	6.3 × 5.8	6.3 × 7.7	8 × 10.5	10 × 10.5
A	1.8	2.1	2.4	2.4	2.9	3.2
B	4.3	5.3	6.6	6.6	8.3	10.3
C	4.3	5.3	6.6	6.6	8.3	10.3
E	1.0	1.3	2.2	2.2	3.1	4.5
L	5.8	5.8	5.8	7.7	10.5	10.5

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EL Series

• Dimensions

Cap (uF) \ WV		6.3		10		16		25		35		50	
		0J		1A		1C		1E		1V		1H	
0.1	0R1											4×5.8	0.7
0.22	R22											4×5.8	1.6
0.33	R33											4×5.8	2.5
0.47	R47											4×5.8	3.5
1	010											4×5.8	7
2.2	2R2											4×5.8	11
3.3	3R3											4×5.8	13
4.7	4R7							4×5.8	13	4×5.8	14	5×5.8	16
10	100					4×5.8	18	5×5.8	20	5×5.8	21	6.3×5.8	24
22	220	4×5.8	22	5×5.8	25	5×5.8	27	6.3×5.8	36	6.3×5.8	38	6.3×5.8	32
33	330	5×5.8	27	5×5.8	30	6.3×5.8	40	6.3×5.8	44	6.3×5.8	42	6.3×7.7	60
47	470	5×5.8	33	6.3×5.8	41	6.3×5.8	48	6.3×5.8	48	6.3×5.8	49	6.3×7.7	63
100	101	6.3×5.8	50	6.3×5.8	53	6.3×5.8	60	6.3×7.7	91	8×10.5	130	8×10.5	140
150	151	6.3×5.8	55	6.3×7.7	105	6.3×7.7	95	8×10.5	140	8×10.5	155	10×10.5	315
220	221	6.3×7.7	100	6.3×7.7	105	6.3×7.7	105	8×10.5	175	10×10.5	315		
330	331	6.3×7.7	105	8×10.5	196	8×10.5	196	10×10.5	315				
470	471	8×10.5	210	8×10.5	210	10×10.5	315						
680	681	8×10.5	210	10×10.5	315	10×10.5	315						
1000	102	10×10.5	315	10×10.5	315							Case size	Allowable ripple

Allowable ripple (mA rms) at 105°C 120Hz

• Frequency coefficient of allowable ripple current

Frequency \ Cap. (uF)	50Hz	120Hz	300Hz	1kHz	10kHz~
~47	0.70	1.00	1.17	1.36	1.50
100~1000	0.85	1.00	1.08	1.20	1.30