

MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

RE Wide Temperature Range, Height 5mmL Series

- Ultra miniature series with 5mmL height
- Wide operating temperature range of -55 ~ +105°C
- Suitable to replace tantalum capacitors at low cost
- Complied to the RoHS directive

M Miniaturized **S** Solvent Proof

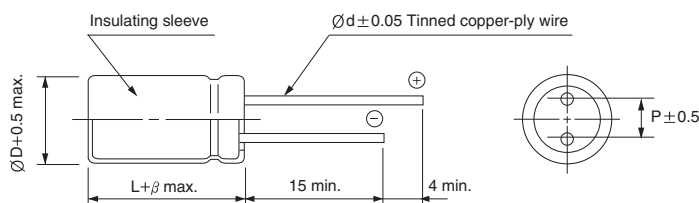
SE → **RE**
Wide temp.



Item	Characteristics																		
Operating temperature range	-55 ~ +105°C																		
Leakage current max.	$I = 0.01CV$ or $3\mu A$ whichever is greater (after 2 minutes)																		
Capacitance tolerance	$\pm 20\%$ at 120Hz, 20°C																		
Dissipation factor max. (at 120Hz, 20°C)	<table border="1"> <tr> <td>WV</td> <td>4</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>tanδ</td> <td>0.35</td> <td>0.27</td> <td>0.23</td> <td>0.19</td> <td>0.15</td> <td>0.13</td> <td>0.11</td> </tr> </table>	WV	4	6.3	10	16	25	35	50	tan δ	0.35	0.27	0.23	0.19	0.15	0.13	0.11		
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Low temperature characteristics (Impedance ratio at 120Hz)	<table border="1"> <tr> <td>WV</td> <td>4</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25~50</td> </tr> <tr> <td>Z-25°C/Z+20°C</td> <td>7</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>12</td> <td>8</td> <td>5</td> <td>4</td> <td>3</td> </tr> </table>	WV	4	6.3	10	16	25~50	Z-25°C/Z+20°C	7	3	3	2	2	Z-40°C/Z+20°C	12	8	5	4	3
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	Z-25°C/Z+20°C	7	3	3	2	2													
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Load life (after application of the rated voltage for 1000 hours at 105°C)	Leakage current	Less than specified value																	
	Capacitance change	Within $\pm 25\%$ of initial value																	
	tan δ	Less than 200% of specified value																	
Shelf life (at 105°C)	After 1000 hours no load test, leakage current, capacitance and tan δ are same as load life value. The measurement shall be performed at 20°C by the KS C IEC 60384 - 4																		

DRAWING

Unit : mm



ØD	4	5	6.3	8
P	1.5	2.0	2.5	2.5
Ød	0.45	0.45	0.45	0.45
β	1.0		1.5	

DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

µF \ WV	4	6.3	10	16	25	35	50
1.0							4×5 7.7
1.5							4×5 9.4
2.2							4×5 11
3.3						4×5 13	4×5 14
4.7					4×5 14	4×5 15	5×5 19
6.8					4×5 17	5×5 21	5×5 23
10		4×5 15	4×5 17	4×5 18	5×5 24	5×5 26	6.3×5 33
15	4×5 17	4×5 19	4×5 21	5×5 26	5×5 29	6.3×5 37	6.3×5 40
22	4×5 20	4×5 23	5×5 29	5×5 32	6.3×5 42	6.3×5 45	8×5 58
33	4×5 25	5×5 32	5×5 35	6.3×5 45	6.3×5 51	8×5 65	8×5 71
47	4×5 29	5×5 39	6.3×5 49	6.3×5 54	8×5 72	8×5 77	
68	5×5 41	6.3×5 55	6.3×5 59	8×5 77	8×5 87		
100	5×5 50	6.3×5 66	8×5 85	8×5 93			
150	6.3×5 71	8×5 96	8×5 104				
220	8×5 102	8×5 116					

Ripple current (mA rms) at 105°C, 120Hz
Case size ØD × L (mm)

FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

µF \ Frequency	60Hz	120Hz	1kHz	10kHz	50kHz	100kHz ≤
~ 47	0.75	1.00	1.55	2.00	2.00	2.00
68 ~	0.80	1.00	1.35	1.50	1.62	1.75