

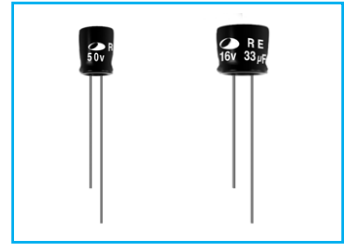
MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS



RE

Wide Temperature Range, Height 5mmL Series

M Miniaturized **S** Solvent Proof



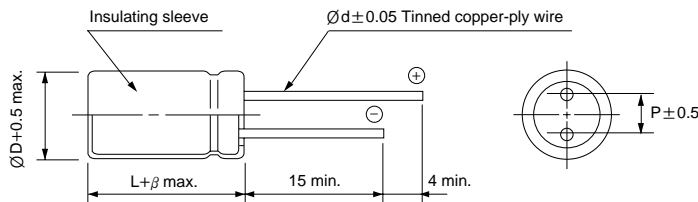
SE → **RE**
Wide temp.

- 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

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		
	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												
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
	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														
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.																		

DRAWING

Unit : mm



ØD	3	4	5	6.3	8
P	1.0	1.5	2.0	2.5	2.5
Ød	0.4	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	
0.1													4×5(3×5)	2.4(2.0)
0.15													4×5(3×5)	3.0(2.5)
0.22													4×5(3×5)	3.6(3.0)
0.33													4×5(3×5)	4.4(3.7)
0.47													4×5(3×5)	5.2(4.4)
0.68													4×5(3×5)	6.3(5.3)
1.0													4×5(3×5)	7.7(6.4)
1.5													4×5(3×5)	9.4(7.8)
2.2													4×5(3×5)	11(9.5)
3.3											4×5(3×5)	13(11)	4×5	14
4.7									4×5(3×5)	14(12)	4×5	15	5×5	19
6.8									4×5	17	5×5	21	5×5	23
10			4×5(3×5)	15(13)	4×5(3×5)	17(14)	4×5(3×5)	18(15)	5×5	24	5×5	26	6.3×5	33
15	4×5(3×5)	17(14)	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)

MINIATURE TYPES