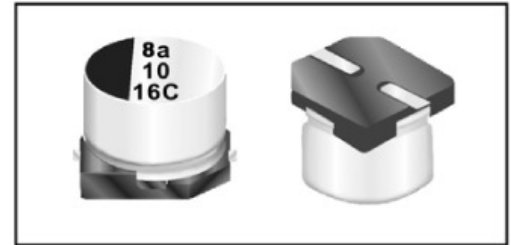


**Features**

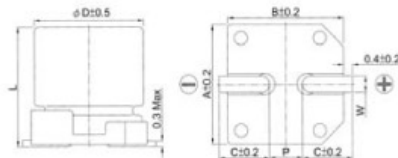
- 4 ~ 6.3  $\phi$ , 85°C, 2,000 hours assured
- Vertical chip type miniaturized for 5.5mm, high capacitors
- Low Leakage Current Lead free reflow soldering is available.
- Designed for surface mounting on high density PC board.
- RoHS Compliance



**SPECIFICATIONS**

Items	Performance																							
Operating Temperature Range	-40°C ~ +85°C																							
Capacitance Tolerance	±20% (at 120Hz, 20°C)																							
Leakage Current (at 20°C)	I = 0.002CV or 0.5 (μA) whichever is greater (after 2 minutes) Where, C = rated capacitance in μF V = rated DC working voltage in V																							
Dissipation Factor (Tan δ at 120Hz, 20°C)	<table border="1"> <tr> <th>Rated Voltage</th> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <th>Tan δ (max)</th> <td>0.28</td> <td>0.24</td> <td>0.20</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> </tr> </table>	Rated Voltage	6.3	10	16	25	35	50	Tan δ (max)	0.28	0.24	0.20	0.14	0.12	0.10									
Rated Voltage	6.3	10	16	25	35	50																		
Tan δ (max)	0.28	0.24	0.20	0.14	0.12	0.10																		
Low Temperature Characteristics (at 120Hz)	<p>Impedance ratio shall not exceed the values given in the table below.</p> <table border="1"> <tr> <th colspan="2">Rated Voltage</th> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <th rowspan="2">Impedance Ratio</th> <th>Z(-25°C)/Z(+20°C)</th> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <th>Z(-40°C)/Z(+20°C)</th> <td>8</td> <td>5</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>	Rated Voltage		6.3	10	16	25	35	50	Impedance Ratio	Z(-25°C)/Z(+20°C)	3	3	2	2	2	2	Z(-40°C)/Z(+20°C)	8	5	4	3	3	3
Rated Voltage		6.3	10	16	25	35	50																	
Impedance Ratio	Z(-25°C)/Z(+20°C)	3	3	2	2	2	2																	
	Z(-40°C)/Z(+20°C)	8	5	4	3	3	3																	
Load Life Test	<table border="1"> <tr> <th>Test Time</th> <td>2,000 hrs</td> </tr> <tr> <th>Capacitance Change</th> <td>Within ±20% of initial value</td> </tr> <tr> <th>Dissipation Factor</th> <td>Less than 200% of specified value</td> </tr> <tr> <th>Leakage Current</th> <td>Within specified value</td> </tr> </table> <p>* The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied for 2,000 hrs at 85°C.</p>	Test Time	2,000 hrs	Capacitance Change	Within ±20% of initial value	Dissipation Factor	Less than 200% of specified value	Leakage Current	Within specified value															
Test Time	2,000 hrs																							
Capacitance Change	Within ±20% of initial value																							
Dissipation Factor	Less than 200% of specified value																							
Leakage Current	Within specified value																							
Shelf Life Test	Test time: 1,000 hrs; other items are the same as those for the load life test.																							
Ripple Current & Frequency Multipliers	<table border="1"> <tr> <th rowspan="2">V. DC(V)</th> <th>Freq.(Hz)</th> <td>50</td> <td>120</td> <td>1K</td> <td>10K up</td> </tr> <tr> <td>Under 16</td> <td>0.8</td> <td>1.0</td> <td>1.15</td> <td>1.25</td> </tr> <tr> <td>25 ~ 35</td> <td>0.8</td> <td>1.0</td> <td>1.25</td> <td>1.40</td> </tr> <tr> <td>50</td> <td>0.8</td> <td>1.0</td> <td>1.35</td> <td>1.50</td> </tr> </table>	V. DC(V)	Freq.(Hz)	50	120	1K	10K up	Under 16	0.8	1.0	1.15	1.25	25 ~ 35	0.8	1.0	1.25	1.40	50	0.8	1.0	1.35	1.50		
V. DC(V)	Freq.(Hz)		50	120	1K	10K up																		
	Under 16	0.8	1.0	1.15	1.25																			
25 ~ 35	0.8	1.0	1.25	1.40																				
50	0.8	1.0	1.35	1.50																				

**DIAGRAM OF DIMENSIONS**

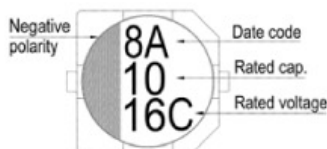


**LEAD SPACING AND DIAMETER**

Unit: mm

φD	L	A	B	C	W	P±0.2
4	5.3 ± 0.2	4.3	4.3	2.0	0.5 ~ 0.8	1.0
5	5.3 ± 0.2	5.3	5.3	2.3	0.5 ~ 0.8	1.5
6.3	5.3 ± 0.2	6.6	6.6	2.7	0.5 ~ 0.8	2.0

**MARKING**



Dimension:  $\phi D \times L(\text{mm})$

Ripple Current: mA/rms at 120 Hz, 85°C

**DIMENSION & PERMISSIBLE RIPPLE CURRENT**

$\mu\text{F}$	V DC Contents	6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)	
		$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA
0.1	0R1											4×5.3	3
0.22	R22											4×5.3	5
0.33	R33											4×5.3	6
0.47	R47											4×5.3	7
1	010											4×5.3	10
2.2	2R2											4×5.3	15
3.3	3R3											4×5.3	19
4.7	4R7							4×5.3	19	4×5.3	20	5×5.3	26
10	100			4×5.3	23	4×5.3	26	5×5.3	32	5×5.3	34	6.3×5.3	44
22	220	4×5.3	31	5×5.3	39	5×5.3	44	6.3×5.3	55	6.3×5.3	59		
33	330	5×5.3	44	5×5.3	48	6.3×5.3	63	6.3×5.3	67				
47	470	5×5.3	52	6.3×5.3	67	6.3×5.3	75						
100	101	6.3×5.3	89	6.3×5.3	98								