

**Features**

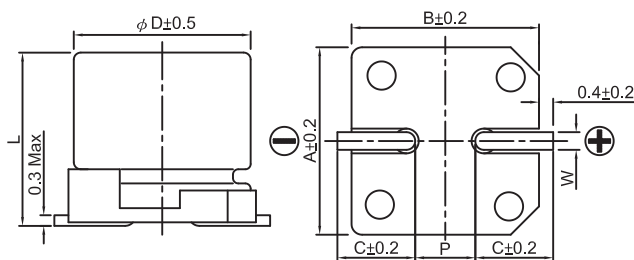
- 105°C, 2,000 hours assured
- Ultra low ESR, solid capacitors of SMD type
- RoHS Compliance



**SPECIFICATIONS**

Items	Performance										
Operating Temperature Range	-55°C ~ +105°C										
Capacitance Tolerance	±20% (at 120Hz, 20°C)										
Leakage Current (at 20°C)	Rated voltage applied, after 2 minutes at 20°C. See the Dimension & Permissible Ripple Current										
Dissipation Factor (Tan δ at 120Hz, 20°C)	See the Dimension & Permissible Ripple Current										
ESR (at 100K ~ 300K Hz, 20°C)	See the Dimension & Permissible Ripple Current										
Load Life Test	<table border="1"> <tr> <td>Test Time</td> <td>2,000 Hrs</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Less than 150% of specified value</td> </tr> <tr> <td>ESR</td> <td>Less than 150% of specified value</td> </tr> <tr> <td>Leakage Current</td> <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 hours at 105°C.</p>	Test Time	2,000 Hrs	Capacitance Change	Within ±20% of initial value	Dissipation Factor	Less than 150% of specified value	ESR	Less than 150% of specified value	Leakage Current	Within specified value
	Test Time	2,000 Hrs									
	Capacitance Change	Within ±20% of initial value									
	Dissipation Factor	Less than 150% of specified value									
	ESR	Less than 150% of specified value									
Leakage Current	Within specified value										
Moisture Resistance	<table border="1"> <tr> <td>Test Time</td> <td>1,000 Hrs</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Less than 150% of specified value</td> </tr> <tr> <td>ESR</td> <td>Less than 150% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </table> <p>* The above specifications shall be satisfied when the capacitors are restored to 20°C after subjecting them at 60°C, 90 to 95% RH for 1,000 hours. Leakage current should be tested after voltage treatment.</p>	Test Time	1,000 Hrs	Capacitance Change	Within ±20% of initial value	Dissipation Factor	Less than 150% of specified value	ESR	Less than 150% of specified value	Leakage Current	Within specified value
	Test Time	1,000 Hrs									
	Capacitance Change	Within ±20% of initial value									
	Dissipation Factor	Less than 150% of specified value									
	ESR	Less than 150% of specified value									
Leakage Current	Within specified value										
Ripple Current & Frequency Multipliers	<table border="1"> <tr> <td>Frequency (Hz)</td> <td>120 ≤ f &lt; 1K</td> <td>1K ≤ f &lt; 10K</td> <td>10K ≤ f &lt; 100K</td> <td>100K ≤ f &lt; 500K</td> </tr> <tr> <td>Multiplier</td> <td>0.05</td> <td>0.3</td> <td>0.7</td> <td>1.0</td> </tr> </table>	Frequency (Hz)	120 ≤ f < 1K	1K ≤ f < 10K	10K ≤ f < 100K	100K ≤ f < 500K	Multiplier	0.05	0.3	0.7	1.0
Frequency (Hz)	120 ≤ f < 1K	1K ≤ f < 10K	10K ≤ f < 100K	100K ≤ f < 500K							
Multiplier	0.05	0.3	0.7	1.0							

**DIAGRAM OF DIMENSIONS**



**LEAD SPACING AND DIAMETER**

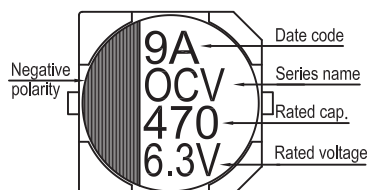
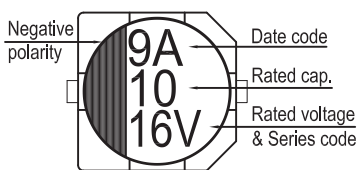
Unit: mm

φD	L	A	B	C	W	P±0.2
6.3	5.9 +0.1/-0.3	6.6	6.6	2.7	0.5 ~ 0.8	2.0
6.3	7.0 ± 0.2	6.6	6.6	2.7	0.5 ~ 0.8	2.0
8	7.0 ± 0.2	8.4	8.4	3.0	0.5 ~ 0.8	3.1
8	12.0 ± 0.5	8.4	8.4	3.0	0.7 ~ 1.1	3.1
10	8.0 ± 0.2	10.4	10.4	3.3	0.7 ~ 1.1	4.7
10	10.0 ± 0.5	10.4	10.4	3.3	0.7 ~ 1.1	4.7
10	12.7 ± 0.5	10.4	10.4	3.3	0.7 ~ 1.1	4.7

**MARKING**

φD = 6.3

φD = 8 ~ 10



Dimension:  $\phi$ D×L(mm)

Ripple Current: mA/rms at 100KHz, 105°C

## DIMENSIONS & PERMISSIBLE RIPPLE CURRENT

W. V. (V)	Capacitance (μF)	Size $\phi$ D×L(mm)	Tan $\delta$ (120Hz, 20°C)	LC (μA)	ESR (mΩ/at 100K~300K Hz, 20°C Max)	Rated R. C. (mA/rms at 100KHz, 105°C)
2.5V (0E)	220	6.3×5.9	0.12	110	25	2,500
	560	8×7	0.12	280	23	3,100
	680	8×12	0.18	340	12	4,770
	1,000	10×8	0.12	500	19	4,240
	1,200	10×10	0.18	750	13	5,200
	1,500	10×12.7	0.18	750	10	5,500
4V (0G)	150	6.3×5.9	0.12	120	26	2,450
	220	8×7	0.12	176	25	3,020
	330	8×7	0.12	264	25	3,020
	470	10×8	0.12	376	20	4,130
	560	8×12	0.18	448	12	4,770
	680	10×8	0.12	544	20	4,130
	820	10×10	0.18	656	13	5,200
	1200	10×12.7	0.18	960	10	5,500
6.3V (0J)	82	6.3×5.9	0.12	103	27	2,400
	100	6.3×5.9	0.12	126	27	2,400
	150	6.3×7	0.12	151	30	2,010
		8×7	0.12	189	30	2,250
	220	6.3×7	0.12	189	25	3,020
		8×7	0.12	277	25	2,250
	330	10×8	0.12	277	30	3,020
	470	8×12	0.12	416	20	4,130
	560	8×12	0.15	592	12	4,770
	820	10×10	0.15	706	16	4,700
1,033	10×12.7	0.15	1,033	10	5,500	
10V (1A)	56	6.3×5.9	0.10	112	31	2,250
	150	8×7	0.10	300	27	2,800
	330	10×8	0.10	660	24	3,770
		8×12	0.15	660	14	4,420
	470	10×10	0.15	940	18	4,400
	560	10×12.7	0.15	1,120	12	5,300
16V (1C)	47	6.3×5.9	0.10	150	50	1,650
	82	8×7	0.10	262	30	2,700
	180	8×12	0.15	576	16	4,360
		10×8	0.10	576	26	3,430
	220	10×10	0.15	704	20	4,200
	330	10×12.7	0.15	792	14	5,050
20V (1D)	22	6.3×5.9	0.10	88	50	1,650
	47	8×7	0.10	188	45	2,000
	82	10×8	0.10	328	40	2,500
	100	8×12	0.15	400	24	3,320
		10×10	0.15	400	25	3,700
	150	10×12.7	0.15	600	20	4,320
25V (1E)	6.8	6.3×5.9	0.10	170	80	1,200
	33	8×12	0.12	413	30	2,980
	56	10×12.7	0.12	700	28	3,800