



Features

- 105°C, 5,000 hours assured
- Ultra low ESR, solid capacitors of SMD type
- RoHS Compliance



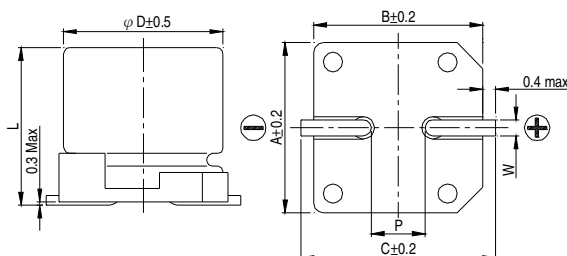
Marking color: Blue

SPECIFICATIONS

Items	Performance										
Category 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 Standard Ratings										
Dissipation Factor (Tan δ at 120Hz, 20°C)	See Standard Ratings										
ESR (at 100k ~ 300k Hz, 20°C)	See Standard Ratings										
Endurance	<table border="1"> <tr> <td>Test Time</td> <td>5,000 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>	Test Time	5,000 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
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	ESR	Less than 150% of specified value									
Leakage Current	Within specified value										
* The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied for 5,000 hours at 105°C.											
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>	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
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Leakage Current	Within specified value										
* 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*.											
Resistance to Soldering Heat * (Please refer to page 23 for reflow soldering conditions)	<table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±10% of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Less than 130% of specified value</td> </tr> <tr> <td>ESR</td> <td>Less than 130% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </table>	Capacitance Change	Within ±10% of initial value	Dissipation Factor	Less than 130% of specified value	ESR	Less than 130% of specified value	Leakage Current	Within specified value		
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* For any doubt about measured values, measure the leakage current again after the following voltage treatment.											
Ripple Current & Frequency Multipliers	<table border="1"> <tr> <td>Frequency (Hz)</td> <td>120 ≤ f < 1k</td> <td>1k ≤ f < 10k</td> <td>10k ≤ f < 100k</td> <td>100k ≤ f < 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
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* For any doubt about measured values, measure the leakage current again after the following voltage treatment.
Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 105°C.

DIAGRAM OF DIMENSIONS



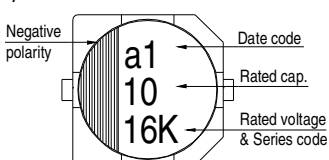
LEAD SPACING AND DIAMETER

Unit: mm

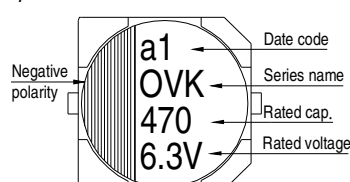
φ D	L	A	B	C	W	P ± 0.2
6.3	5.9+0.1/-0.3	6.6	6.6	7.4	0.5 ~ 0.8	2.0
8	6.7 ± 0.3	8.4	8.4	9.2	0.7 ~ 1.1	3.1
10	7.7 ± 0.3	10.4	10.4	11.2	0.7 ~ 1.1	4.7

MARKING

φ D = 6.3



φ D = 8 ~ 10





Dimension: $\phi D \times L$ (mm)

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

STANDARD RATINGS

W. V. (V)	Capacitance (μ F)	Size $\phi D \times L$ (mm)	Tan δ (120Hz, 20°C)	L C (μ A)	E S R (m Ω /at 100k ~ 300k Hz, 20°C Max)	Rated R. C. (mA/rms at 100k Hz, 105°C)
4V (0G)	150	6.3×5.9	0.12	120	22	2,570
	270	8×6.7	0.12	216	22	3,220
	330	6.3×5.9	0.12	264	20	2,800
		8×6.7	0.12	264	22	3,220
	560	8×6.7	0.12	448	18	3,600
	680	10×7.7	0.12	544	20	4,130
6.3V (0J)	100	6.3×5.9	0.12	126	22	2,800
	120	6.3×5.9	0.12	151	22	2,800
	220	6.3×5.9	0.12	277	20	2,800
		8×6.7	0.12	277	22	3,220
	390	8×6.7	0.12	491	22	3,220
	470	10×7.7	0.12	592	20	4,130
10V (1A)	56	6.3×5.9	0.12	112	27	2,300
	68	6.3×5.9	0.12	136	27	2,300
	120	6.3×5.9	0.12	240	27	2,300
	150	8×6.7	0.12	300	30	2,760
		10×7.7	0.12	300	30	3,020
	270	8×6.7	0.12	540	22	3,200
	330	10×7.7	0.12	660	24	3,770
16V (1C)	39	6.3×5.9	0.12	125	30	2,200
	68	6.3×5.9	0.12	218	30	2,200
	82	8×6.7	0.12	262	28	2,800
	100	10×7.7	0.12	320	35	2,670
	120	8×6.7	0.12	384	28	2,800
	180	10×7.7	0.12	576	29	3,430

Note: The surface temperature of aluminum case top must not exceed 105°C. A rise in temperature due to self-heating by ripple current should be factored in.