

OVS Series

Features

- 105°C, 20,000 hours assured
- Ultra low ESR, solid capacitors of SMD type
- RoHS Compliance



Marking color: Blue

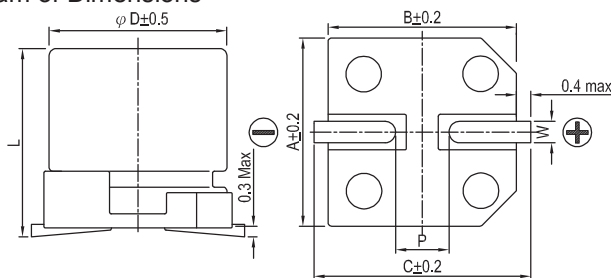
Specifications

Items	Performance																													
Category Temperature Range	-55℃ ~ +105℃																													
Capacitance Tolerance	±20% (at 120Hz, 20℃)																													
Leakage Current (at 20℃)*	Rated voltage applied, after 2 minutes at 20℃. See Standard Ratings																													
Tanδ (at120Hz, 20℃)	See Standard Ratings																													
ESR (at 100k ~ 300k Hz, 20℃)	See Standard Ratings																													
Endurance	<table><tr><td>Test Time</td><td colspan="4">20,000 Hrs</td></tr><tr><td>Capacitance Change</td><td colspan="4">Within ±20% of initial value</td></tr><tr><td>Tanδ</td><td colspan="4">Less than 150% of specified value</td></tr><tr><td>ESR</td><td colspan="4">Less than 150% of specified value</td></tr><tr><td>Leakage Current</td><td colspan="4">Within specified value</td></tr></table>					Test Time	20,000 Hrs				Capacitance Change	Within ±20% of initial value				Tanδ	Less than 150% of specified value				ESR	Less than 150% of specified value				Leakage Current	Within specified value			
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* The above specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage applied for 20,000 hours at 105℃.																														
Moisture Resistance	<table><tr><td>Test Time</td><td colspan="4">1,000 Hrs</td></tr><tr><td>Capacitance Change</td><td colspan="4">Within ±20% of initial value</td></tr><tr><td>Tanδ</td><td colspan="4">Less than 150% of specified value</td></tr><tr><td>ESR</td><td colspan="4">Less than 150% of specified value</td></tr><tr><td>Leakage Current</td><td colspan="4">Within specified value</td></tr></table>					Test Time	1,000 Hrs				Capacitance Change	Within ±20% of initial value				Tanδ	Less than 150% of specified value				ESR	Less than 150% of specified value				Leakage Current	Within specified value			
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* The above specifications shall be satisfied when the capacitors are restored to 20℃ after subjecting them at 60℃, 90 to 95% RH for 1,000 hours. Leakage current should be tested after voltage treatment*.																														
Resistance to Soldering Heat * (Please refer to page 25 for reflow soldering conditions)	<table><tr><td>Capacitance Change</td><td colspan="4">Within ±10% of initial value</td></tr><tr><td>Tanδ</td><td colspan="4">Less than 130% of specified value</td></tr><tr><td>ESR</td><td colspan="4">Less than 130% of specified value</td></tr><tr><td>Leakage Current</td><td colspan="4">Within specified value</td></tr></table>					Capacitance Change	Within ±10% of initial value				Tanδ	Less than 130% of specified value				ESR	Less than 130% of specified value				Leakage Current	Within specified value								
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Ripple Current and Frequency Multipliers	<table><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: DC rated voltage is applied to the capacitors for 2 hours at 105°C.

Diagram of Dimensions



Lead Spacing and Diameter

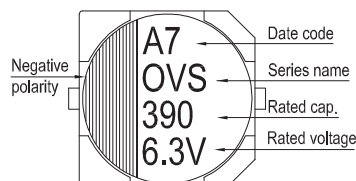
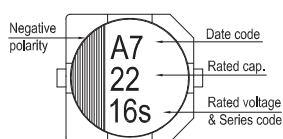
Unit: mm

φ D	L	A	B	C	W	P ± 0.2
5	5.8 ± 0.3	5.3	5.3	5.9	0.5 ~ 0.8	1.5
6.3	5.8 ± 0.3	6.6	6.6	7.2	0.5 ~ 0.8	2.0
8	6.7 ± 0.3	8.4	8.4	9.0	0.7 ~ 1.1	3.1

Marking

φ D = 5 ~ 6.3

φ D = 8 ~ 10



Standard Ratings

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

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

W. V. (V)	Surge Voltage (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)	4.6	150	5 $\times$ 5.8	0.12	120	25	2,150
		560	8 $\times$ 6.7	0.12	440	22	3,220
6.3V (0J)	7.2	47	5 $\times$ 5.8	0.12	59	30	1,970
		100	5 $\times$ 5.8	0.12	126	20	2,150
		120	6.3 $\times$ 5.8	0.12	151	22	2,570
		220	6.3 $\times$ 5.8	0.12	277	22	2,570
		390	8 $\times$ 6.7	0.12	491	22	3,220
10V(1A)	12.0	33	5 $\times$ 5.8	0.12	66	70	1,100
		68	5 $\times$ 5.8	0.12	136	30	1,970
		120	6.3 $\times$ 5.8	0.12	240	27	2,320
16V(1C)	18.4	22	5 $\times$ 5.8	0.12	70	90	1,060
		39	5 $\times$ 5.8	0.12	125	35	1,820
		39	6.3 $\times$ 5.8	0.12	125	37	2,050
		68	6.3 $\times$ 5.8	0.12	218	30	2,200
		82	8 $\times$ 6.7	0.12	262	30	2,760
		120	8 $\times$ 6.7	0.12	384	27	2,900

Part Numbering System

OVS Series	120 μ F	$\pm$ 20%	16V	Carrier Tape		8 ϕ $\times$ 6.7L	Pb-free and PET coating case
<u>OVS</u>	<u>121</u>	<u>M</u>	<u>1C</u>	<u>TR</u>	<u>-</u>	<u>0806</u>	
Series Name	Capacitance	Capacitance Tolerance	Rated Voltage	Package Type	Terminal Type	Case size	Lead Wire and Coating Type

Note: For more details, please refer to "Part Numbering System (SMD Type)" on page 15.