

## OVF Series

### Features

- 105°C, 15,000 hours assured
- Ultra low ESR, solid capacitors of SMD type
- RoHS Compliance
- AEC-Q200 Parts Available: Replace “S” Suffix with “KS” or “LS” Suffix



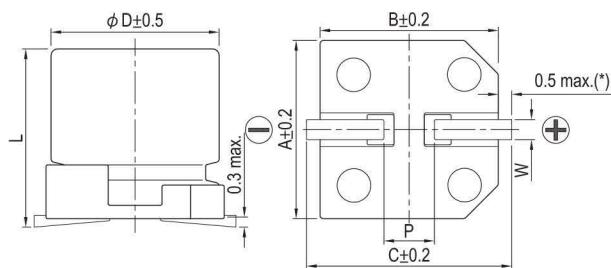
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### Specifications

Items	Performance										
Category Temperature Range	-55°C ~ +105°C										
Capacitance Tolerance	±20% (at 120 Hz, 20°C)										
Leakage Current (at 20°C)*	Rated voltage applied, after 2 minutes at 20°C. See Standard Ratings										
Tanδ (at 120 Hz, 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>15,000 Hrs For 5 ~ 6.3 φ × 4.4L: 3,000 Hrs</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>Tanδ</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	15,000 Hrs For 5 ~ 6.3 φ × 4.4L: 3,000 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°C after the rated voltage applied for 15,000 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>Tanδ</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	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°C after subjecting them at 60°C, 90 ~ 95% RH for 1,000 hours. Leakage current should be tested after voltage treatment*.											
Resistance to Soldering Heat * (Please refer to page 26 for reflow soldering conditions)	<table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±10% of initial value</td> </tr> <tr> <td>Tanδ</td> <td>Within specified value</td> </tr> <tr> <td>ESR</td> <td>Within specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </table>	Capacitance Change	Within ±10% of initial value	Tanδ	Within specified value	ESR	Within specified value	Leakage Current	Within specified value		
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Ripple Current and Frequency Multipliers											
<table border="1"> <thead> <tr> <th>Frequency (Hz)</th> <th>120 ≤ f &lt; 1k</th> <th>1k ≤ f &lt; 10k</th> <th>10k ≤ f &lt; 100k</th> <th>100k ≤ f &lt; 500k</th> </tr> </thead> <tbody> <tr> <td>Multiplier</td> <td>0.05</td> <td>0.3</td> <td>0.7</td> <td>1.0</td> </tr> </tbody> </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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Multiplier	0.05	0.3	0.7	1.0							

\* 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



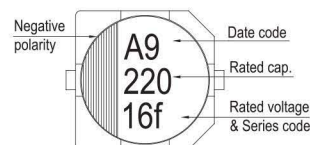
Lead Spacing and Diameter

φD	L	A	B	C	W	P ± 0.2
5	4.4 ± 0.2	5.3	5.3	5.9	0.5 ~ 0.8	1.5
5	5.8 ± 0.3	5.3	5.3	5.9	0.5 ~ 0.8	1.5
6.3	4.4 ± 0.2	6.6	6.6	7.2	0.5 ~ 0.8	2.0
6.3	5.8 ± 0.3	6.6	6.6	7.2	0.5 ~ 0.8	2.0
6.3	7.7 ± 0.3	6.6	6.6	7.2	0.5 ~ 0.8	2.0
8	6.7 ± 0.3	8.3	8.3	9.0	0.7 ~ 1.1	3.1
8	7.7 ± 0.3	8.3	8.3	9.0	0.7 ~ 1.1	3.1

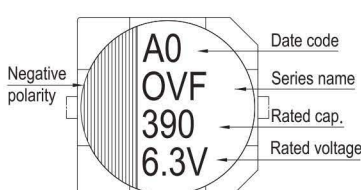
(\*): For 5 ~ 6.3 φ is 0.4 max.

### Marking

φD = 5 ~ 6.3



φD = 8



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

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

**Standard Ratings**

Rated Volt. (V)	Surge Voltage (V)	Capacitance ( $\mu$ F)	Size $\phi D \times L$ (mm)	Tan $\delta$ (120 Hz, 20°C)	L C ( $\mu$ A)	E S R (m $\Omega$ /at 100k ~ 300k Hz, 20°C max.)	Rated R. C. (mA/rms at 100k Hz, 105°C)
2.0 (0D)	2.3	680	6.3 $\times$ 5.8	0.12	700	12	3,500
2.5V (0E)	2.9	220	5 $\times$ 4.4	0.12	700	25	2,100
			5 $\times$ 5.8			10	
		330	6.3 $\times$ 4.4			12	3,500
			5 $\times$ 5.8			10	3,900
		390	6.3 $\times$ 5.8		292	10	3,900
			6.3 $\times$ 7.7		352	9	4,200
		560	6.3 $\times$ 5.8		700	10	3,900
			6.3 $\times$ 7.7		420	9	4,200
			8 $\times$ 6.7		420	10	4,500
			8 $\times$ 6.7		510	10	
1,000	8 $\times$ 7.7	750	9				
4V (0G)	4.6	330	6.3 $\times$ 5.8	0.12	396	10	3,900
		390	6.3 $\times$ 7.7		468	9	4,200
		470	8 $\times$ 6.7		564	10	4,500
		560	8 $\times$ 6.7		672	10	
		680	8 $\times$ 7.7		816	9	
6.3V (0J)	7.2	150	5 $\times$ 4.4	0.12	700	25	2,100
			5 $\times$ 5.8			12	
		220	5 $\times$ 5.8			12	3,500
			6.3 $\times$ 5.8			416	10
		270	6.3 $\times$ 7.7		510	9	4,200
		330	6.3 $\times$ 5.8		700	10	3,900
			6.3 $\times$ 7.7		623	9	4,200
			8 $\times$ 6.7		624	10	4,500
			8 $\times$ 6.7		737	10	4,500
		470	8 $\times$ 7.7		888	9	4,500
560	8 $\times$ 7.7	1,050	9	4,500			
10V (1A)	12.0	120	5 $\times$ 5.8	0.12	240	22	2,600

OP-CAP

**Part Numbering System**

OVF Series	560 $\mu$ F	$\pm$ 20%	2.5V	Carrier Tape	6.3 $\phi$ $\times$ 7.7L		
<b>OVF</b>	<b>561</b>	<b>M</b>	<b>0E</b>	<b>TR</b>	-	<b>0608</b>	<b>S</b>
Series Name	Capacitance	Capacitance Tolerance	Rated Voltage	Package Type	Terminal Type	Case size	Regional Code

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