

OVG Series

Features

- 105°C, 15,000 hours assured
- Ultra low ESR with large permissible ripple current
- RoHS Compliance



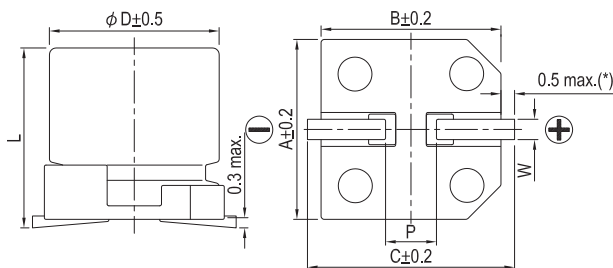
Marking color: Blue

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 × 4.4: 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 × 4.4: 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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	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 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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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 ~ 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"> <tr> <th>Frequency (Hz)</th> <th>120 ≤ f < 1k</th> <th>1k ≤ f < 10k</th> <th>10k ≤ f < 100k</th> <th>100k ≤ f < 500k</th> </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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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

Unit: mm

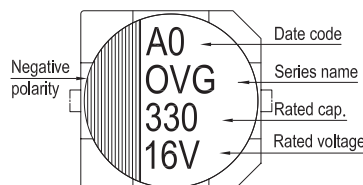
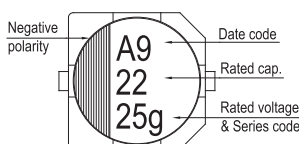
φD	L	A	B	C	W	P ± 0.2
5	4.4 ± 0.2	5.3	5.3	5.9	0.5 ~ 0.8	1.5
5	5.8 ± 0.3	5.3	5.3	5.9	0.5 ~ 0.8	1.5
6.3	4.4 ± 0.2	6.6	6.6	7.2	0.5 ~ 0.8	2.0
6.3	5.8 ± 0.3	6.6	6.6	7.2	0.5 ~ 0.8	2.0
6.3	7.7 ± 0.3	6.6	6.6	7.2	0.5 ~ 0.8	2.0
8	6.7 ± 0.3	8.3	8.3	9.0	0.7 ~ 1.1	3.1
8	7.7 ± 0.3	8.3	8.3	9.0	0.7 ~ 1.1	3.1
8	10.0 ± 0.5	8.3	8.3	9.0	0.7 ~ 1.1	3.1
10	7.7 ± 0.3	10.3	10.3	11.0	0.7 ~ 1.3	4.7
10	10.0 ± 0.5	10.3	10.3	11.0	0.7 ~ 1.3	4.7
10	12.6 +0.1/-0.4	10.3	10.3	11.0	0.7 ~ 1.3	4.7

(*) For 5 ~ 6.3φ is 0.4 max.

Marking

φD = 5 ~ 6.3

φD = 8 ~ 10





Dimension: ϕ D×L(mm)
Ripple Current: mA/rms at 100k Hz, 105°C

Standard Ratings

Rated Volt. (V)	Surge Voltage (V)	Capacitance (μF)	Size ϕ D×L(mm)	Tanδ (120 Hz, 20°C)	L C (μA)	E S R (mΩ/at 100k ~ 300k Hz, 20°C max.)	Rated R. C. (mA/rms at 100k Hz, 105°C)		
16V (1C)	18.0	39	5 × 4.4	0.12	312	50	1,840		
		47	5 × 4.4		376	50	1,840		
		68	6.3 × 4.4		544	40	2,450		
		100	5 × 5.8		320	27	3,000		
		180	6.3 × 5.8		576	22	3,300		
		220	6.3 × 7.7		704				
		270	8 × 6.7		864				
		330	8 × 7.7		1,050			21	3,400
						8 × 10	1,050	21	3,400
						8 × 10	1,790	18	3,900
						10 × 10	2,620	16	4,200
						10 × 12.6	2,620	12	5,400
						10 × 10	3,200	18	4,100
						10 × 12.6	3,200	12	5,400
20V(1D)	23.0	27	5 × 4.4	0.12	270	55	1,770		
		33	5 × 4.4		330	55	1,770		
		47	5 × 5.8		188	30	2,800		
			6.3 × 4.4		470	42	2,400		
		56	5 × 5.8		224	30	2,800		
		120	6.3 × 5.8		480	25	3,200		
		150	6.3 × 7.7		600				
		180	8 × 6.7		720				
						8 × 7.7	880	23	3,300
						8 × 10	880	23	3,400
						8 × 10	1,560	20	3,700
						10 × 10	2,240	18	4,100
25V(1E)	29.0	10	5 × 4.4	0.12	125	60	1,700		
		22	5 × 5.8		110	40	2,450		
			6.3 × 4.4		275	45	2,350		
		27	5 × 5.8		135	40	2,450		
		39	6.3 × 5.8		195	30	2,800		
		47			235				
		56	6.3 × 7.7		280	28	2,800		
		68	8 × 6.7		340	28	3,000		
		82	8 × 7.7		410	26	3,100		
		100	8 × 10		500	24	3,300		
		120	8 × 10		600	22	3,500		
		150	10 × 7.7		750	25	3,400		
		220	10 × 10		1,100	20	3,800		

OP-CAP

Part Numbering System

OVG Series 150μF ±20% 25V Carrier Tape 10 ϕ × 7.7L Pb-free and PET coating case

OVG **151** **M** **1E** **TR** - **1008**

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.