

Features

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



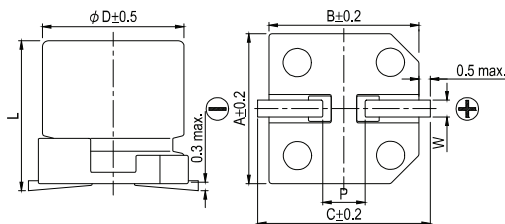
Marking color: Blue

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</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	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
	Test Time	15,000 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										
* 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
	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										
* 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 15 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		
	Capacitance Change	Within ±10% of initial value									
	Tanδ	Within specified value									
	ESR	Within specified value									
Leakage Current	Within specified value										
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
	Frequency (Hz)	120 ≤ f < 1k	1k ≤ f < 10k	10k ≤ f < 100k	100k ≤ f < 500k						
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



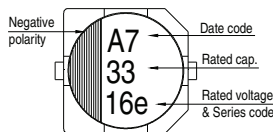
Lead Spacing and Diameter

Unit: mm

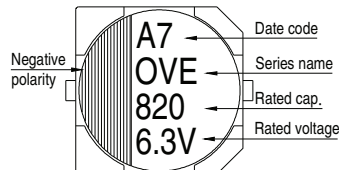
φD	L	A	B	C	W	P ± 0.2
5	5.8 ± 0.3	5.3	5.3	5.9	0.5 ~ 0.8	1.5
6.3	5.8 ± 0.3	6.6	6.6	7.2	0.5 ~ 0.8	2.0
6.3	7.7 ± 0.3	6.6	6.6	7.2	0.5 ~ 0.8	2.0
8	6.7 ± 0.3	8.3	8.3	9.0	0.7 ~ 1.1	3.1
8	7.7 ± 0.3	8.3	8.3	9.0	0.7 ~ 1.1	3.1
8	10.0 ± 0.5	8.3	8.3	9.0	0.7 ~ 1.1	3.1
8	12.0 ± 0.5	8.3	8.3	9.0	0.7 ~ 1.1	3.1
10	7.7 ± 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

Marking

φD = 5 ~ 6.3



φD = 8 ~ 10



Standard Ratings

Dimension: $\phi D \times L$ (mm)
Ripple Current: mA/rms at 100k Hz, 105°C

Rated Volt. (V)	Surge Voltage (V)	Capacitance (μ F)	Size $\phi D \times L$ (mm)	Tan δ (120 Hz, 20°C)	LC (μ A)	E S R (m Ω /at 100k ~ 300k Hz, 20°C max.)	Rated R. C. (mA/rms at 100k Hz, 105°C)
2.5V (0E)	2.9	180	5 × 5.8	0.12	90	21	2,670
		390	6.3 × 5.8		195	15	3,160
		470	6.3 × 7.7		235	13	3,600
		560	6.3 × 7.7		280		3,600
			8 × 6.7		280		4,100
		680	8 × 6.7		340		4,100
			8 × 7.7		410	12	4,260
		820	8 × 12		410	9	5,400
		1,200	10 × 7.7		600	13	4,450
		1,500	8 × 10		750	10	5,220
			8 × 12		750	9	5,400
		2,200	10 × 10		1,100	10	5,500
		2,700	10 × 12.6		1,350	9	5,600
		4V (0G)	4.6		100	5 × 5.8	0.12
150	5 × 5.8			120	22	2,610	
270	6.3 × 5.8			216	15	3,160	
330	6.3 × 5.8			264	15	3,160	
390	6.3 × 7.7			312	14	3,470	
470	8 × 6.7			376		3,950	
560	8 × 6.7			448			
680	8 × 7.7			544	13	5,220	
1,000	8 × 10			800	10		
	10 × 7.7			800	14	5,400	
1,200	8 × 12			960	9	5,500	
	1,500			10 × 10	960		
1,800				10 × 12.6	1,200	9	
					1,440		
6.3V (0J)	7.2	100	5 × 5.8	0.12	126	24	2,500
		120	5 × 5.8		151	24	2,500
		220	6.3 × 5.8		277	15	3,160
		270	6.3 × 7.7		340	14	3,470
		330	6.3 × 7.7		415		3,470
			8 × 6.7		415		
		390	8 × 6.7		491		3,950
		470	8 × 7.7		592	13	4,770
		820	8 × 10		1,033	12	
			8 × 12			10	4,300
			10 × 7.7		14	5,025	
		1,200	10 × 10		1,510		12
		1,500	10 × 10		1,890	12	5,025
			10 × 12.6		1,890	10	5,500

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)
10V (1A)	12.0	47	5 × 5.8	0.12	94	28	2,310
		56			112		
		68			136		
		120	6.3 × 5.8		240	25	2,530
		150	6.3 × 7.7		300	21	2,880
		220	8 × 6.7		440		3,220
		270	8 × 6.7		540		3,220
		390	8 × 10		780	17	4,000
		470	10 × 7.7		940	19	3,800
		680	10 × 10		1,360	13	4,820
16V (1C)	18.0	33	5 × 5.8	0.12	105	35	2,070
		39	5 × 5.8		124	35	2,070
		68	6.3 × 5.8		217	28	2,390
		82	6.3 × 7.7		262	24	2,700
		100	6.3 × 7.7		320		2,700
			8 × 6.7		320		3,010
		120	8 × 6.7		384	3,010	
		150	8 × 7.7		480	22	3,150
		180	8 × 10		576	18	3,890
		220	8 × 10		704	18	3,890
			10 × 7.7		704	22	3,450
		330	10 × 10		1,050	16	4,350

Part Numbering System

OVE Series 820μF ±20% 6.3V Carrier Tape 8 ϕ × 12L

OVE **821** **M** **OJ** **TR** - **0812** **XX**

Series Name Capacitance Capacitance Tolerance Rated Voltage Package Type Terminal Type Case Size

XX
S = Standard
KS = AEC-Q200 Qualified, Safety Critical Application
LS = AEC-Q200 Qualified, Non-Safety Critical Application