OVE Series

Features

- 105℃, 15,000 hours assured
- Ultra low ESR with large permissible ripple current
- RoHS Compliant

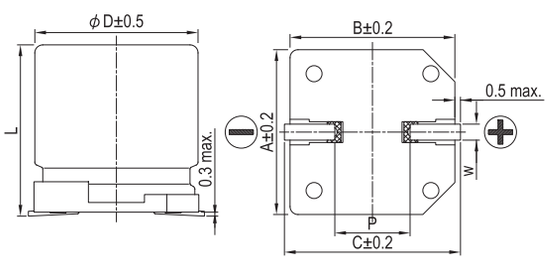
Marking color: Blue

Specifications

Items	Performance
Category Temperature Range	-55℃ ~ +105℃
Capacitance Tolerance	±20% (at 120 Hz, 20℃)
Leakage Current (at 20℃)*	Rated voltage applied, after 2 minutes at 20℃. See Standard Ratings
Tanδ (at120 Hz, 20℃)	See Standard Ratings
ESR (at 100k ~ 300k Hz, 20℃)	See Standard Ratings
Endurance	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℃ after the rated voltage applied for 15,000 hours at 105℃.
Moisture Resistance	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℃ after subjecting them at 60℃, 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)	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	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℃.

Diagram of Dimensions

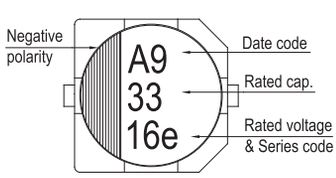


Lead Spacing and Diameter Unit: mm

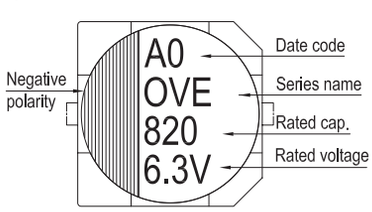
ϕD	L	A	B	C	W	P ± 0.2
5	5.8 ± 0.3	5.3	5.3	5.9	0.5 ~ 0.8	1.5
6.3	5.8 ± 0.3	6.6	6.6	7.2	0.5 ~ 0.8	2.0
6.3	7.7 ± 0.3	6.6	6.6	7.2	0.5 ~ 0.8	2.0
8	6.7 ± 0.3	8.3	8.3	9.0	0.7 ~ 1.1	3.1
8	7.7 ± 0.3	8.3	8.3	9.0	0.7 ~ 1.1	3.1
8	10.0 ± 0.5	8.3	8.3	9.0	0.7 ~ 1.1	3.1
8	12.0 ± 0.5	8.3	8.3	9.0	0.7 ~ 1.1	3.1
10	7.7 ± 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: ϕD×L(mm)
Ripple Current: mA/rms at 100k Hz, 105℃

Rated Volt. (V)	Surge Voltage (V)	Capacitance (μF)	Size ϕD×L(mm)	Tanδ (120 Hz, 20℃)	L C (μA)	E S R (mΩ/at 100k ~ 300k Hz, 20℃ max.)	Rated R. C. (mA/rms at 100k Hz, 105℃)
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
		820	8 × 7.7		410	12	4,260
			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	80	22	2,610
		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	
		1,000	8 × 10		800	10	5,220
			10 × 7.7		800	14	4,300
		1,200	8 × 12		960	9	5,400
			10 × 10		960	10	5,500
		1,500			1,200		
		1,800			1,440		
			10 × 12.6		1,440	9	5,600
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		3,950
		390	8 × 6.7		491		
		470	8 × 7.7		592	13	
		820	8 × 10		1,033	12	4,770
			8 × 12			10	5,150
			10 × 7.7			14	4,300
		1,200	10 × 10		1,510	12	5,025
		1,500	10 × 10		1,890	12	5,025
			10 × 12.6		1,890	10	5,500

Dimension: φD×L(mm)
Ripple Current: mA/rms at 100k Hz, 105℃

Standard Ratings

Rated Volt. (V)	Surge Voltage (V)	Capacitance (μF)	Size φD×L(mm)	Tanδ (120 Hz, 20℃)	L C (μA)	E S R (mΩ/at 100k ~ 300k Hz, 20℃ max.)	Rated R. C. (mA/rms at 100k Hz, 105℃)
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		8φ×12L	General Purpose
OVE	**821**	**M**	**0J**	**TR**	-	**0812**	
Series Name	Capacitance	Capacitance Tolerance	Rated Voltage	Package Type	Terminal Type	Case Size	Application

Note: For more details, please refer to “Part Numbering System” on page 20.

OP-CAP