OCV Series

Features
- 105℃, 2,000 hours assured
- Ultra low ESR, solid capacitors of SMD type
- RoHS Compliance



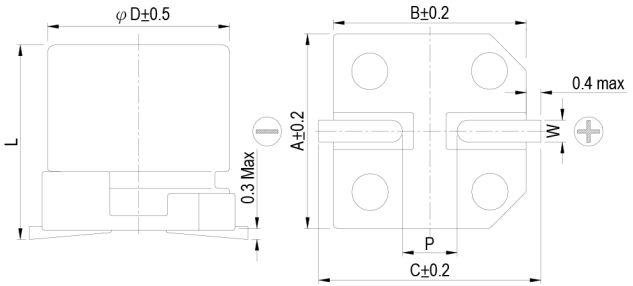
Marking color: Blue

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 (at 120Hz, 20℃)	See Standard Ratings
ESR (at 100k ~ 300k Hz, 20℃)	See Standard Ratings
Endurance	Test Time: 2,000 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 2,000 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 to 95% RH for 1,000 hours. Leakage current should be tested after voltage treatment*.
Resistance to Soldering Heat * (Please refer to page 22 for reflowsoldering conditions)	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
Ripple Current & 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

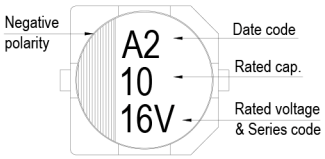


Lead Spacing and Diameter Unit: mm

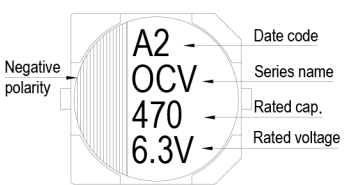
φD	L	A	B	C	W	P ± 0.2
5	5.7 ± 0.3	5.3	5.3	5.9	0.5 ~ 0.8	1.5
6.3	5.9 +0.1/-0.3	6.6	6.6	7.2	0.5 ~ 0.8	2.0
6.3	7.0 ± 0.2	6.6	6.6	7.2	0.5 ~ 0.8	2.0
8	6.7 ± 0.3	8.4	8.4	9.0	0.7 ~ 1.1	3.1
8	12.0 ± 0.5	8.4	8.4	9.0	0.7 ~ 1.1	3.1
10	7.7 ± 0.3	10.4	10.4	11.0	0.7 ~ 1.3	4.7
10	9.9 +0.1/-0.3	10.4	10.4	11.0	0.7 ~ 1.3	4.7
10	12.6 +0.1/-0.4	10.4	10.4	11.0	0.7 ~ 1.3	4.7

Marking

φD = 5 ~ 6.3



φD = 8 ~ 10



Dimension: φD×L(mm)

Standard Ratings

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

W. V. (V)	Surge Voltage (V)	Capacitance (μF)	Size φD×L(mm)	Tanδ (120Hz, 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	220	6.3 × 5.9	0.12	110	25	2,500
		560	8 × 6.7	0.12	280	23	3,100
		680	8 × 12	0.18	340	12	4,770
		1,000	10 × 7.7	0.12	500	19	4,240
		1,200	10 × 9.9	0.18	750	13	5,200
		1,500	10 × 12.6	0.18	750	10	5,500
4V (0G)	4.6	150	5 × 5.7	0.12	120	30	1,490
		150	6.3 × 5.9	0.12	120	26	2,450
		220	8 × 6.7	0.12	176	25	3,020
		330	8 × 6.7	0.12	264	25	3,020
		470	10 × 7.7	0.12	376	20	4,130
		560	8 × 12	0.18	448	12	4,770
		680	10 × 7.7	0.12	544	20	4,130
		820	10 × 9.9	0.18	656	13	5,200
		1,200	10 × 12.6	0.18	960	10	5,500
6.3V (0J)	7.2	82	6.3 × 5.9	0.12	103	27	2,400
		100	5 × 5.7	0.12	126	35	1,380
			6.3 × 5.9	0.12	126	27	2,400
		120	6.3 × 7	0.12	151	30	2,010
		150	6.3 × 7	0.12	189	30	2,250
			8 × 6.7	0.12	189	25	3,020
		220	6.3 × 7	0.12	277	30	2,250
			8 × 6.7	0.12	277	25	3,020
		330	10 × 7.7	0.12	416	20	4,130
		470	8 × 12	0.15	592	12	4,770
		560	10 × 9.9	0.15	706	16	4,700
		820	10 × 12.6	0.15	1,033	10	5,500
10V (1A)	12.0	47	5 × 5.7	0.12	94	40	1,270
		56	6.3 × 5.9	0.10	112	31	2,250
		150	8 × 6.7	0.10	300	27	2,800
		330	8 × 12	0.15	660	14	4,420
			10 × 7.7	0.10	660	24	3,770
		470	10 × 9.9	0.15	940	18	4,400
		560	10 × 12.6	0.15	1,120	12	5,300
16V (1C)	18.0	22	5 × 5.7	0.12	70	45	1,210
		47	6.3 × 5.9	0.10	150	50	1,650
		82	8 × 6.7	0.10	262	30	2,700
		180	8 × 12	0.15	576	16	4,360
			10 × 7.7	0.10	576	26	3,430
		220	10 × 9.9	0.15	704	20	4,200
		330	10 × 12.6	0.15	792	14	5,050
		820	10 × 12.6	0.12	2,624	18	4,200

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

Standard Ratings

W. V. (V)	Surge Voltage (V)	Capacitance (μF)	Size ϕD×L(mm)	Tanδ (120Hz, 20℃)	L C (μA)	E S R (mΩ/at 100k ~ 300k Hz, 20℃ Max)	Rated R. C. (mA/rms at 100k Hz, 105℃)
20V (1D)	23.0	22	6.3 × 5.9	0.10	88	50	1,650
		47	8 × 6.7	0.10	188	45	2,000
		82	10 × 7.7	0.10	328	40	2,500
		100	8 × 12	0.15	400	24	3,320
			10 × 9.9	0.15	400	25	3,700
		150	10 × 12.6	0.15	600	20	4,320
		330	10 × 12.6	0.12	1,320	26	2,700
25V (1E)	29.0	6.8	6.3 × 5.9	0.10	170	80	1,200
		10	8 × 6.7	0.10	125	60	1,500
		22	10 × 7.7	0.10	275	50	2,000
		33	8 × 12	0.12	413	30	2,980
		56	10 × 12.6	0.12	700	28	3,800
		270	10 × 12.6	0.12	1,350	27	2,700
35V (1V)	40.0	39	8 × 12	0.12	273	31	2,100
		68	10 × 12.6	0.12	476	28	2,700
50V (1H)	58.0	39	8 × 12	0.12	390	34	2,000
		68	10 × 12.6	0.12	680	29	2,600
63V (1J)	73.0	27	8 × 12	0.12	340	35	2,000
		47	10 × 12.6	0.12	592	30	2,500

Part Numbering System

OCV series	470μF	±20%	6.3V	Carrier Tape		8ϕ×12L	Pb-free and PET coating case
OCV	**471**	**M**	**0J**	**TR**	**-**	**0812**	
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 12.