



OVA Series

Features

- 105°C, 15,000 hours assured
- Ultra low ESR, solid capacitors of SMD type
- RoHS Compliance



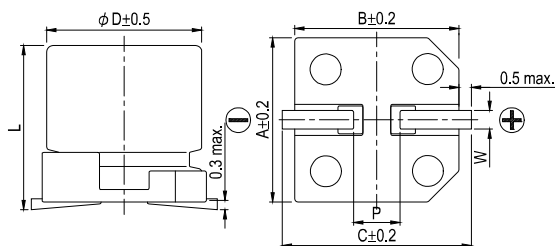
Marking color: Blue

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 (at120 Hz, 20°C)	See Standard Ratings				
ESR (at 100k ~ 300k Hz, 20°C)	See Standard Ratings				
Endurance	Test Time		15,000 Hrs For 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		
	* 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	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 26 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°C.

Diagram of Dimensions



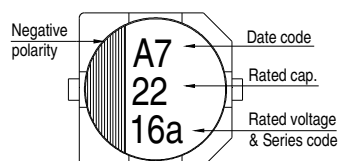
Lead Spacing and Diameter

Unit: mm

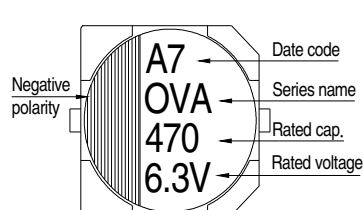
φ D	L	A	B	C	W	P ± 0.2
5	5.8 ± 0.3	5.3	5.3	5.9	0.5 ~ 0.8	1.5
6.3	4.4 ± 0.2	6.6	6.6	7.2	0.5 ~ 0.8	2.0
6.3	5.8 ± 0.3	6.6	6.6	7.2	0.5 ~ 0.8	2.0
8	6.7 ± 0.3	8.3	8.3	9.0	0.7 ~ 1.1	3.1
8	12.0 ± 0.5	8.3	8.3	9.0	0.7 ~ 1.1	3.1
10	7.7 ± 0.3	10.3	10.3	11.0	0.7 ~ 1.3	4.7
10	12.6 +0.1/-0.4	10.3	10.3	11.0	0.7 ~ 1.3	4.7

Marking

φ D = 5 ~ 6.3



φ D = 8 ~ 10



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

Ripple Current: mA/rms at 100k Hz

Standard Ratings

Rated Volt. (V)	Surge Voltage (V)	Capacitance (μ F)	Size $\phi D \times L$ (mm)	Tan δ (120 Hz, 20°C)	L C (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	220	6.3 $\times$ 5.8	0.12	110	25	2,500
		560	8 $\times$ 6.7		280	23	3,100
		680	8 $\times$ 12		340	12	4,770
		1,000	10 $\times$ 7.7		500	19	4,240
		1,500	10 $\times$ 12.6		750	10	5,500
4V (0G)	4.6	100	6.3 $\times$ 5.8	0.12	80	26	2,450
		120	6.3 $\times$ 4.4		240	38	1,710
		150	5 $\times$ 5.8		120	30	1,490
			6.3 $\times$ 5.8		120	26	2,450
		220	8 $\times$ 6.7		176	25	3,020
		330	8 $\times$ 6.7		264	25	3,020
		470	10 $\times$ 7.7		376	20	4,130
		560	8 $\times$ 12		448	12	4,770
		680	10 $\times$ 7.7		544	20	4,130
		820	10 $\times$ 12.6		656	10	5,500
6.3V (0J)	7.2	1,200	10 $\times$ 12.6		960	10	5,500
		47	5 $\times$ 5.8	0.12	59.2	35	1,380
		68	6.3 $\times$ 5.8		85.6	27	2,400
		82	6.3 $\times$ 4.4		258	40	1,670
			6.3 $\times$ 5.8		103	27	2,400
		100	5 $\times$ 5.8		126	35	1,380
			6.3 $\times$ 4.4		315	40	1,670
			6.3 $\times$ 5.8		126	27	2,400
		120	6.3 $\times$ 5.8		151	27	2,400
		150	8 $\times$ 6.7		189	25	3,020
		220	8 $\times$ 6.7		277	25	3,020
		330	10 $\times$ 7.7		416	20	4,130
		390	8 $\times$ 12		491	12	4,770
		470	8 $\times$ 12		592	12	4,770
			10 $\times$ 7.7		592	20	4,130
10V (1A)	12.0	680	10 $\times$ 12.6		857	10	5,500
		820	10 $\times$ 12.6		1,033	10	5,500
		33	5 $\times$ 5.8	0.12	66	40	1,270
		47	5 $\times$ 5.8		94	40	1,270
			6.3 $\times$ 4.4		235	41	1,560
			6.3 $\times$ 5.8		94	31	2,250
		56	6.3 $\times$ 5.8		112	31	2,250
		120	8 $\times$ 6.7		240	27	2,800
		150	8 $\times$ 6.7		300	27	2,800
		270	8 $\times$ 12		540	14	4,420
			10 $\times$ 7.7		540	24	3,770
		330	8 $\times$ 12		660	14	4,420
			10 $\times$ 7.7		660	24	3,770
		470	10 $\times$ 12.6		940	12	5,300
		560	10 $\times$ 12.6		1,120	12	5,300

Dimension: ϕ D×L(mm)

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

Standard Ratings

Rated Volt. (V)	Surge Voltage (V)	Capacitance (μ F)	Size ϕ D×L(mm)	Tan δ (120 Hz, 20°C)	L C (μ A)	E S R (m Ω /at 100k ~ 300k Hz, 20°C max.)	Rated R. C. (mA/rms at 100k Hz, 105°C)
16V (1C)	18.0	22	5 × 5.8	0.12	70	45	1,210
			6.3 × 4.4		176	45	1,490
		33	6.3 × 5.8		106	37	2,050
		39	6.3 × 5.8		125	37	2,050
		82	8 × 6.7		262	30	2,700
		150	10 × 7.7		480	26	3,430
		180	8 × 12		576	16	4,360
			10 × 7.7		576	26	3,430
		220	10 × 12.6		704	14	5,050
		330	10 × 12.6		792	14	5,050
20V (1D)	23.0	15	6.3 × 4.4	0.12	150	57	1,300
		22	6.3 × 5.8		88	50	1,650
		39	8 × 6.7		156	45	2,000
		47	8 × 6.7		188	45	2,000
		82	10 × 7.7		328	40	2,500
		150	10 × 12.6		600	20	4,320
25V (1E)	29.0	10	6.3 × 5.8	0.12	125	65	1,500
		22	8 × 6.7		275	50	1,800
		39	10 × 7.7		488	45	2,100

Part Numbering System

OVA Series	470 μ F	±20%	6.3V	Carrier Tape		8 ϕ × 12L	Pb-free and Coated Case
OVA	471	M	0J	TR	-	0812	
Series Name	Capacitance	Capacitance Tolerance	Rated Voltage	Package Type	Terminal Type	Case Size	Lead Wire and Case Type

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

Mouser Electronics

Authorized Distributor

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Lelon:

<u>OVA820M1CTR-0807</u>	<u>OVA820M1DTR-1008</u>	<u>OVA821M0GTR-1013</u>	<u>OVA821M0JTR-1013</u>	<u>OVA561M0GTR-0812</u>
<u>OVA561M1ATR-1013</u>	<u>OVA681M0ETR-0812</u>	<u>OVA681M0GTR-1008</u>	<u>OVA681M0JTR-1013</u>	<u>OVA820M0JTR-0606</u>
<u>OVA470M1DTR-0807</u>	<u>OVA471M0GTR-1008</u>	<u>OVA471M0JTR-0812</u>	<u>OVA471M1ATR-1013</u>	<u>OVA560M1ATR-0606</u>
<u>OVA561M0ETR-0807</u>	<u>OVA331M1CTR-1013</u>	<u>OVA390M1CTR-0606</u>	<u>OVA390M1DTR-0807</u>	<u>OVA390M1ETR-1008</u>
<u>OVA470M1ATR-0506</u>	<u>OVA470M1ATR-0606</u>	<u>OVA330M1ATR-0506</u>	<u>OVA330M1CTR-0606</u>	<u>OVA331M0GTR-0807</u>
<u>OVA331M0JTR-1008</u>	<u>OVA331M1ATR-0812</u>	<u>OVA331M1ATR-1008</u>	<u>OVA221M0ETR-0606</u>	<u>OVA221M0GTR-0807</u>
<u>OVA221M0JTR-0807</u>	<u>OVA221M1CTR-1013</u>	<u>OVA271M1ATR-0812</u>	<u>OVA271M1ATR-1008</u>	<u>OVA152M0ETR-1013</u>
<u>OVA181M1CTR-0812</u>	<u>OVA181M1CTR-1008</u>	<u>OVA220M1CTR-0506</u>	<u>OVA220M1DTR-0606</u>	<u>OVA220M1ETR-0807</u>
<u>OVA151M0GTR-0506</u>	<u>OVA151M0GTR-0606</u>	<u>OVA151M0JTR-0807</u>	<u>OVA151M1ATR-0807</u>	<u>OVA151M1CTR-1008</u>
<u>OVA151M1DTR-1013</u>	<u>OVA101M0JTR-0506</u>	<u>OVA101M0JTR-0606</u>	<u>OVA102M0ETR-1008</u>	<u>OVA121M0JTR-0606</u>
<u>OVA121M1ATR-0807</u>	<u>OVA122M0GTR-1013</u>	<u>OVA100M1ETR-0606</u>		