

OVK Series

Features

- 105°C, 5,000 hours assured
- Ultra low ESR, solid capacitors of SMD type
- RoHS Compliance



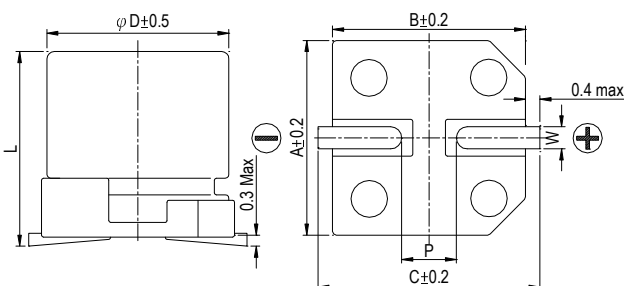
Marking color: Blue

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		5,000 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 5,000 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 reflow soldering 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 °C.

Diagram of Dimensions



Lead Spacing and Diameter

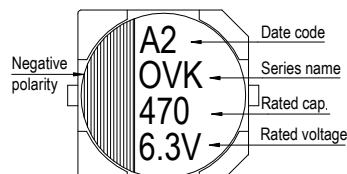
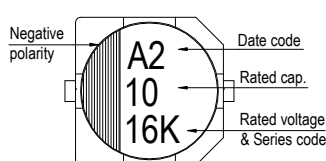
Unit: mm

φ D	L	A	B	C	W	P ± 0.2
6.3	5.9+0.1/-0.3	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	12.6 +0.1/-0.4	10.4	10.4	11.0	0.7 ~ 1.3	4.7

Marking

φ D = 6.3

φ D = 8 ~ 10



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

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

Standard Ratings

W. V. (V)	Surge Voltage (V)	Capacitance (μ F)	Size $\phi D \times L$ (mm)	Tan δ (120Hz, 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)
4V (0G)	4.6	150	6.3 $\times$ 5.9	0.12	120	22	2,570
		270	8 $\times$ 6.7	0.12	216	22	3,220
		330	6.3 $\times$ 5.9	0.12	264	20	2,800
			8 $\times$ 6.7	0.12	264	22	3,220
		560	8 $\times$ 6.7	0.12	448	18	3,600
		680	10 $\times$ 7.7	0.12	544	20	4,130
6.3V (0J)	7.2	100	6.3 $\times$ 5.9	0.12	126	22	2,800
		120	6.3 $\times$ 5.9	0.12	151	22	2,800
		220	6.3 $\times$ 5.9	0.12	277	20	2,800
			8 $\times$ 6.7	0.12	277	22	3,220
		390	8 $\times$ 6.7	0.12	491	22	3,220
		470	10 $\times$ 7.7	0.12	592	20	4,130
10V (1A)	12.0	56	6.3 $\times$ 5.9	0.12	112	27	2,300
		68	6.3 $\times$ 5.9	0.12	136	27	2,300
		120	6.3 $\times$ 5.9	0.12	240	27	2,300
		150	8 $\times$ 6.7	0.12	300	30	2,760
			10 $\times$ 7.7	0.12	300	30	3,020
		270	8 $\times$ 6.7	0.12	540	22	3,200
16V (1C)	18.0	330	10 $\times$ 7.7	0.12	660	24	3,770
		39	6.3 $\times$ 5.9	0.12	125	30	2,200
		68	6.3 $\times$ 5.9	0.12	218	30	2,200
		82	8 $\times$ 6.7	0.12	262	28	2,800
		100	10 $\times$ 7.7	0.12	320	35	2,670
		120	8 $\times$ 6.7	0.12	384	28	2,800
20V(1D)	23.0	180	10 $\times$ 7.7	0.12	576	29	3,430
		820	10 $\times$ 12.6	0.12	2,624	12	5,400
		56	6.3 $\times$ 5.9	0.12	224	48	1,300
		270	8 $\times$ 12	0.12	1,080	21	4,000
		390	8 $\times$ 12	0.12	1,560	14	4,950
		470	10 $\times$ 12.6	0.12	1,880	20	4,300
25V(1E)	29.0	47	6.3 $\times$ 5.9	0.12	235	49	1,300
		150	8 $\times$ 12	0.12	750	28	2,200
		270	10 $\times$ 12.6	0.12	1,350	27	2,700
35V(1V)	40.0	18	6.3 $\times$ 5.9	0.12	126	64	900
		82	8 $\times$ 12	0.12	574	29	2,200
		150	10 $\times$ 12.6	0.12	1,050	28	2,600

Note: The surface temperature of aluminum case top must not exceed 105°C. A rise in temperature due to self-heating by ripple current should be factored in.

Part Numbering System

OVK series	470 μ F	$\pm$ 20%	6.3V	Carrier Tape	10 ϕ $\times$ 7.7L	Pb-free and PET coating case
OVK	471	M	0J	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 12.