

MVK Series

● 105℃ 1,000~ 2,000Hrs assured

- Vertical SMD type
- Wide Temperature range
- EMVK Series : Ecological capacitors with the same characteristics as MVK

Solvent-
proof



A diagram consisting of a large, horizontally-oriented oval. Inside the oval, the letters "MV" are centered in a serif font.



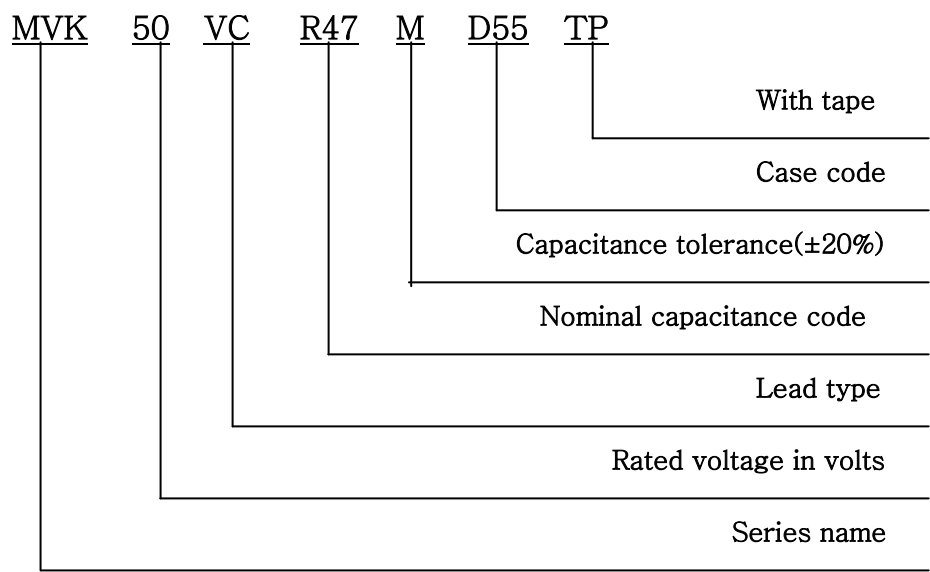
MVK

Wide Temp

SPECIFICATIONS

Item	Characteristics						
Rated Voltage Range	6.3 ~ 50V _{DC}						
Operating Temperature Range	-40 ~ +105℃						
Capacitance Tolerance	±20% (M) (at 20℃, 120Hz)						
Leakage Current	I = 0.01CV or 3μA, whichever is greater Where, I : Leakage current(μA), C : Nominal capacitance(μF), V: Rated voltage(V _{DC}) (at 20℃, 2 minutes)						
Dissipation Factor (Tanδ)	Rated Voltage(V _{DC})	6.3	10	16	25	35	50
	Ø 4~ Ø 6.3	0.30	0.24	0.20	0.16	0.14	0.12
	Ø 8~ Ø 10	0.40	0.30	0.26	0.16	0.14	0.12
	(at 20℃, 120Hz)						
Temperature Characteristics (Max. Impedance ratio)	Rated Voltage(V _{DC})	6.3	10	16	25	35 ~ 50	
	Z(-25℃)/Z(20℃)	4	3	2	2	2	
	Z(-40℃)/Z(20℃)	10	8	6	4	3	
	(at 120Hz)						
Load Life	<p>The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage applied with the following conditions.</p> <p>Ø 4~ Ø 6.3 : 105℃, 1,000hours. Ø 8 & Ø 10 : 105℃, 2,000hours</p> <p>Capacitance change</p> <p>Ø 4~ Ø 6.3 ≤ ± 30% of the initial value</p> <p>Ø 8~ Ø 10 ≤ ± 20% of the initial value</p> <p>Tanδ</p> <p>Ø 4~ Ø 6.3 ≤ 300% of the initial specified value</p> <p>Ø 8~ Ø 10 ≤ 200% of the initial specified value</p> <p>Leakage current ≤ The initial specified value</p>						
Shelf Life	<p>The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for the specified time at 105℃ without voltage applied..</p> <p>Ø 4~ Ø 6.3 : 105℃ 500 hours. Ø 8 & Ø 10 : 105℃, 1,000 hours</p> <p>Capacitance change</p> <p>Ø 4~ Ø 6.3 ≤ ± 25% of the initial value</p> <p>Ø 8~ Ø 10 ≤ ± 20% of the initial value</p> <p>Tanδ ≤ 200% of the initial specified value</p> <p>Leakage current ≤ The initial specified value</p>						
Others	Satisfied characteristics W of KS C 6421						

PART NUMBERING SYSTEM



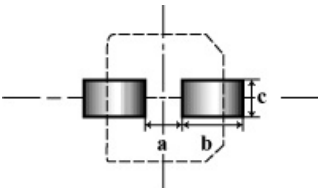
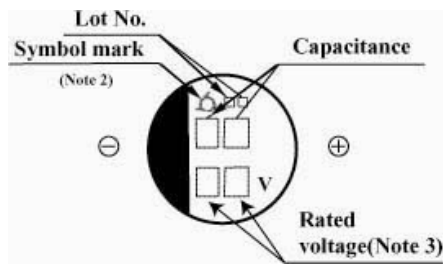
Capacitance	Code
0.1 μF	R1
0.47 μF	R47
1.0 μF	1
4.7 μF	4R7
10 μF	10
100 μF	100

DIMENSIONS OF MVK Series (Type :VC)

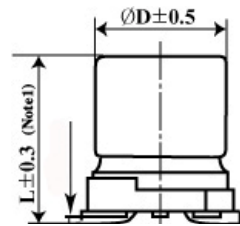
DIMENSIONS

Recommended solder land on PC board

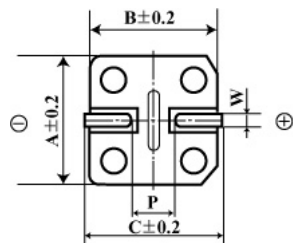
Marking



 Sold land on PC board



Note 1 : L + 0.5 for 8 x 6.3 (H63), 8 x 10 (H10), 10 x 10(J10)
Note 2 : 4 x 5.2(D55), 5 x 5.2(E55) is excluded symbol mark
Note 3 : 6.3WV is marked by 6V.



Case code	Ø D	L	A	B	C	W	P	a	b	c
D55	4	5.2	4.3	4.3	5.1	0.5-0.8	1.0	1.0	2.6	1.6
E55	5	5.2	5.3	5.3	5.9	0.5-0.8	1.4	1.4	3.0	1.6
F55	6.3	5.2	6.6	6.6	7.2	0.5-0.8	1.9	1.9	3.5	1.6
F60	6.3	5.7	6.6	6.6	7.2	0.5-0.8	1.9	1.9	3.5	1.6
H63	8	6.3	8.3	8.3	9.0	0.5-0.8	2.3	2.3	4.5	1.6
H10	8	10.0	8.3	8.3	9.0	0.7-1.1	3.1	3.1	4.2	2.2
J10	10	10.0	10.3	10.3	11.0	0.7-1.1	4.5	4.5	4.4	2.2

RATINGS OF MVK Series

Permissible Ripple Current(mArms / 105℃, 120Hz)

V _{DC} Item μF	6.3(0J)			10(1A)			16(1C)			
	Case Code		Ripple Current	Case Code		Ripple Current	Case code		Ripple Current	
0.1										
0.22										
0.33										
0.47										
1										
2.2										
3.3										
4.7										
10							D55		16	
22	D55		21	E55		30	E55		30	
33	E55		34	E55		34	F55		45	
47	E55		36	F55		48	F55		48	
100	F55	F60	56	F60	H63	90	F60	H10	110	180
220	H63		150	H63		150	H10		275	
330	H10		290	J10		450	J10		450	
470	J10		460	J10		460	J10		460	
1000	J10		520							

Item μF	V_{DC}		25(1E)		35(1V)		50(1H)	
	Case code		Ripple Current		Case Code		Ripple current	
0.1							D55	1.3
0.22							D55	2.6
0.33							D55	3.2
0.47							D55	3.8
1							D55	5.6
2.2							D55	10
3.3							D55	14
4.7					D55	15	E55	19
10	E55		25		E55	25	F55	29
22	F55		40		F55	40	H63	70
33	F55		45		H63	80	H10	140
47	F60	H63	52	80	H63	140	H10	170
100	H10		180		H10	250	J10	310
220	J10		375		J10	375		
330	J10		450					
470								
1000								