

# MVY Series

● 105°C 1,000~ 2,000Hrs assured

- Vertical SMD type.
- Low impedance .
- EMVY Series : Ecological capacitors with the same characteristics as MVY

Solvent-  
proof



MVK

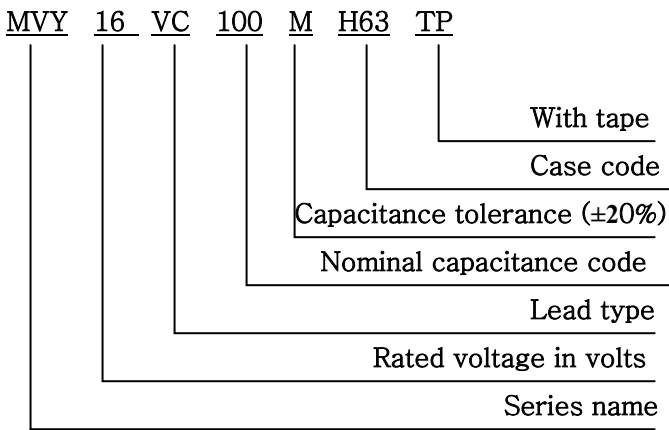
Low Imp.  
Wide Temp.

MVY

## SPECIFICATIONS

Item	Characteristics						
Rated Voltage Range	6.3 ~ 35V <sub>DC</sub>						
Operating Temperature Range	-40 ~ + 105°C						
Capacitance Tolerance	±20% (M)						(at 20°C, 120Hz)
Leakage Current	I = 0.01CV or 3μA, whichever is greater. Where, I : Leakage current(μA), C : Nominal capacitance(μF), V: Rated voltage(V <sub>DC</sub> ) (at 20°C, 2 minutes)						
Dissipation Factor(Tanδ)	Rated Voltage(V <sub>DC</sub> )	6.3	10	16	25	35	(at 20°C, 120Hz)
	Tanδ	0.24	0.20	0.16	0.14	0.12	
Temperature Characteristics (Impedance ratio)	Z (-25°C) / Z (20°C)	2					(at 120Hz)
	Z (-40°C) / Z (20°C)	3					
Load Life	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied with the following condition.</p> <p>Ø 4~ Ø 6.3 : 105°C, 1,000hours. Ø 8 &amp; 10 : 105°C, 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°C after exposing them for 1000 hours at 105°C without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements.</p> <p>Capacitance change ≤ ±30% of the initial value (for 6.3V rated capacitors)</p> <p>≤ ±20% of the initial value (for 10 to 35V rated capacitors)</p> <p>Tanδ ≤ ±300% of the initial specified value(for 6.3V rated capacitors)</p> <p>≤ 200% of the initial specified value (for 10 to 35V rated capacitors)</p> <p>Leakage current ≤ The initial specified value</p>						
Others	Satisfied characteristics W of KS C 6421						

## PART NUMBERING SYSTEM



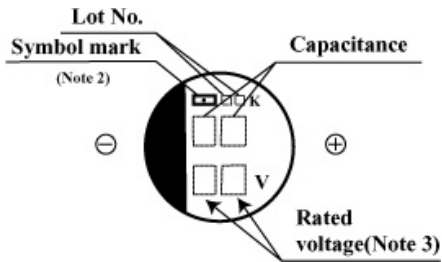
Capacitance	Code
0.1 $\mu\text{F}$	R1
0.47 $\mu\text{F}$	R47
1.0 $\mu\text{F}$	1
4.7 $\mu\text{F}$	4R7
10 $\mu\text{F}$	10
100 $\mu\text{F}$	100

Case Code	$\varnothing$ D x L max (mm)
D55	$\varnothing 4 \times 5.5\text{L}$
E55	$\varnothing 5 \times 5.5\text{L}$
F55	$\varnothing 6.3 \times 5.5\text{L}$
F60	$\varnothing 6.3 \times 6.0\text{L}$
H63	$\varnothing 8 \times 6.8\text{L}$
H10	$\varnothing 8 \times 10.5\text{L}$
J10	$\varnothing 10 \times 10.5\text{L}$

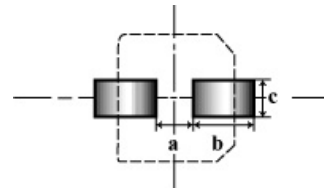
## DIMENSIONS OF MVY Series (Type :VC)

### DIMENSIONS

#### Marking



### Recommended solder land on PC board



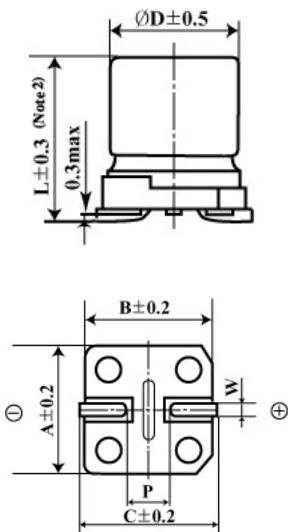
**Sold land on PC board**

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.

Note 4 : Case Color ; Clarity Green



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

## RATINGS OF MVY Series

$V_{DC}$ $\mu F$	6.3(OJ)			10(1A)			16(1C)			25(1E)			35(1V)		
4.7													D55	3.6	45
10							D55	3.6	45	E55	2.0	71	E55	2.0	71
22	D55	3.6	45	E55	2.0	70	E55	2.0	70	F55	1.0	107	F60	1.0	107
33	E55	2.0	70	E55	2.0	70	F55	1.0	107	F55	1.0	107	H63	0.7	161
47	E55	2.0	70	F55	1.0	107	F60	1.0	107	H63	0.7	161	H10	0.3	310
100	F55	1.0	107	H63	0.7	161	H63	0.7	161	H10	0.3	310	J10	0.2	427
220	H63	0.7	161	H10	0.3	310	J10	0.2	427	J10	0.2	427			
330	H10	0.3	310	J10	0.2	427	J10	0.2	427	<p style="text-align: right;">Permissible ripple current (mA rms/105°C, 100kHz)</p> <p style="text-align: right;">Impedance (Ω Max/20°C, 100kHz)</p> <p style="text-align: right;">Case code</p>					
470	J10	0.2	427	J10	0.2	427									