



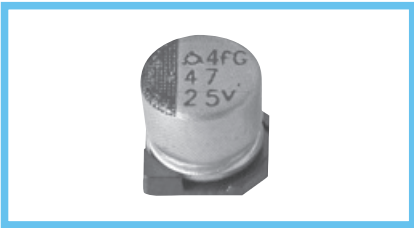
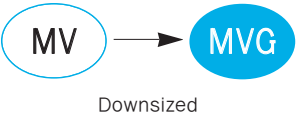
MVG Series

• 85°C 1,000~2,000Hrs assured.

Solvent-proof

WV ≤ 63V<sub>DC</sub>

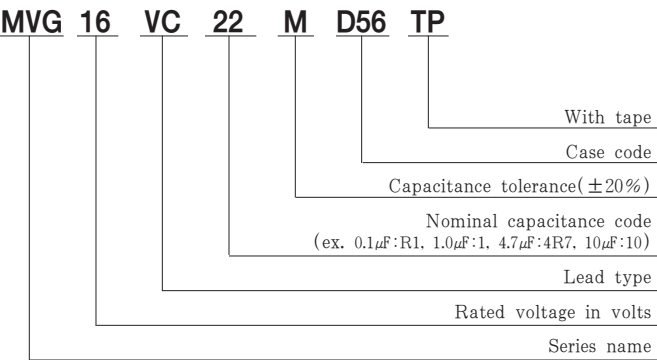
- Vertical SMD Type.
- Downsized of MV Series.
- For CD/DVD-ROM, Navigation, LCD MT/TV.
- RoHS compliant.
- Halogen-free capacitors are also available.



SPECIFICATIONS

Item	Characteristics									
Rated Voltage Range	4 ~ 450 V <sub>DC</sub>									
Operating Temperature Range	-40 ~ + 85°C									
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)									
Leakage Current	Rated Volatag(V <sub>DC</sub> )	4~100					160~450			
	Max. leakage current(μA)	0.01CV (μA) or 3μA, whichever is greater. (at 20°C, 2 minutes)					0.04CV + 100(μA) (at 20°C, 1 minute)			
	Where, C:Nominal capacitance(μF), V:Rated voltage(V <sub>DC</sub> )									
Dissipation Factor (Tanδ)	Rated Voltage(V <sub>DC</sub> )	4	6.3	10	16	25~50	63~100	160~250	400~450	
	Tanδ(Max.)	0.42	0.40	0.30	0.20	0.15	0.12	0.20	0.25	
(at 20°C, 120Hz)										
Temperature Characteristics (Max. Impedance ratio)	Rated Voltage(V <sub>DC</sub> )	4	6.3	10	16	25	35~50	63~100	160~250	400~450
	Z(-25°C)/Z(+20°C)	7	4	3	2	2	2	3	3	6
	Z(-40°C)/Z(+20°C)	15	10	8	6	4	3	4	6	10
(at 120Hz)										
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2,000 hours at 85°C. (where, 1,000 hours for ø 3)									
	Rated Voltage(V <sub>DC</sub> )	4 ~ 6.3			10 ~ 100			160~450		
	Capacitance change	≤±30% of the initial value			≤±25% of the initial value			≤±20% of the initial value		
	Tanδ	≤ 300% of the initial specified value						≤ 200% of the initial specified value		
	Leakage Current	≤ The initial specified value								
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 85°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. (where, 500 hours for ø 3)									
	Rated Voltage(V <sub>DC</sub> )	4 ~ 6.3			10 ~ 100			160~450		
	Capacitance change	≤±30% of the initial value			≤±25% of the initial value			≤±20% of the initial value		
	Tanδ	≤ 300% of the initial specified value						≤ 200% of the initial specified value		
	Leakage Current	≤ The initial specified value								
Others	Satisfied characteristics KS C IEC 60384-4									

PART NUMBERING SYSTEM



RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Size code	Cap.(μF)	Freq.(Hz)			
		120	1K	10K	100K
B55 ~ J10	0.1 ~ 1.0	1.00	1.50	1.75	1.80
	2.2 ~ 10	1.00	1.30	1.40	1.50
	22 ~ 1,500	1.00	1.05	1.08	1.08
K14 ~ M22	4.7	1.00	1.75	2.30	2.50
	10 ~ 68	1.00	1.50	1.75	1.80
	100 ~ 1,000	1.00	1.30	1.40	1.50
	2,200 ~ 10,000	1.00	1.05	1.08	1.08

## DIMENSIONS OF MVG Series(Type:VC)

Unit(mm)

### DIMENSIONS

● Vibration Resistance

<Size code: B55~M22>      <Size code: H10~M22>

■ : Dummy terminals

Recommended Solder land on PC board

■ : Solder land on PC board

### MARKING

<B55 ~ J10>      <K14~M22>

Note 1 : L±0.5 for 8×6.3(H63) ~ 18×21.5(M22)  
 Note 2 : 3×5.2(B55), 4×5.3(D56), 5×5.3(E56) is excluded symbol mark  
 Note 3 : 6.3WV is marked by 6V

Case code	∅D	L	A	B	C	W	P	a	b	c	a	b	c
B55	3	5.2	3.3	3.3	3.7	0.45-0.75	0.8	0.8	2.2	1.6			
D56	4	5.3	4.3	4.3	5.1	0.5-0.8	1.0	1.0	2.6	1.6			
E56	5	5.3	5.3	5.3	5.9	0.5-0.8	1.4	1.4	3.0	1.6			
F56	6.3	5.3	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			
F80	6.3	7.7	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	8.3	8.3	9.0	0.7-1.1	3.1	3.1	4.2	2.2	3.1	4.2	3.5
J10	10	10	10.3	10.3	11.0	0.7-1.1	4.5	4.5	4.4	2.2	4.5	4.4	3.5
K14	12.5	13.5	13.0	13.0	13.7	1.0-1.3	4.2	4.0	5.7	2.5	3.4	6.3	9.3
L17	16	16.5	17.0	17.0	18.0	1.0-1.3	6.5	6.0	6.9	2.5	4.7	7.8	9.6
L22	16	21.5	17.0	17.0	18.0	1.0-1.3	6.5	6.0	6.9	2.5			
M17	18	16.5	19.0	19.0	20.0	1.0-1.3	6.5	6.0	7.9	2.5	4.7	8.8	9.6
M22	18	21.5	19.0	19.0	20.0	1.0-1.3	6.5	6.0	7.9	2.5			

● Vibration Resistance

## RATINGS OF MVG Series

Vdc μF	4	6.3	10	16	25	35	50	63	100
0.1							B55 D56 1.1 1.3	D56 1.3	
0.22							B55 D56 2.0 2.9	D56 3.0	
0.33							B55 D56 3.0 3.5	D56 4.0	
0.47							B55 D56 3.8 4.2	D56 5.0	
1							B55 D56 5.6 6.2	D56 8.0	
2.2						B55 D56 7.7	B55 D56 8.3 10	D56 12	
3.3						B55 D56 9.4	D56 14	E56 17	
4.7					B55 D56 10.5	D56 15	D56 19	E56 20	
10			B55 D56 12.8	B55 D56 14 17	D56 20	D56 25	E56 29	F60 32	
22	B55 D56 14	B55 D56 23	D56 27	D56 27	E56 28	F56 33	F60 40	F80 60	H10 90
33	D56 23	D56 30	D56 30	E56 40	E56 40	F56 40	F80 55	H10 110	J10 120
47	D56 27	D56 33	E56 45	E56 45	F56 60	F60 55	H63 140	H10 130	J10 144
68	E56 38	E56 49	F56 54	F56 78	F60 90	H63 157	H10 170	J10 170	K14 380
100	E56 46	E56 55	F56 65	F60 85	F80 H63 145	H10 175	H10 190	K14 380	K14 440
220	F56 74	F60 75	F80 H63 130	F80 130	H10 260	H10 260	J10 320	K14 580	M17 800
330		F80 H63 135	H10 270	H10 270	H10 300	J10 360	K14 600	L17 820	M22 1,000
470		H10 280	H10 280	H10 280	J10 400	K14 600	L17 850	M17 1,000	
1,000		J10 430	J10 430	K14 710	K14 820	L17 1,100	L22 1,300		
1,500		J10 480	K14 850						
2,200		K14 890	K14 960	L17 1,150	M17 1,400	M22 1,700			
3,300		L17 1,200	L17 1,300	M17 1,450	M22 1,800				
4,700		L17 1,400	M17 1,600	M22 1,750					
6,800		M17 1,700	M22 1,850						
10,000		M22 2,000							

Vdc μF	160	200	250	400	450
4.7				K14 120	K14 120
10	J10 55	K14 150	K14 150	L17 140	L17 140
22	K14 240	K14 240	L17 300	M17 280	L22 280
33	K14 260	L17 350	L17 340	M22 350	M22 350
47	L17 400	L17 420	M17 420		
68	L17 500	M17 510	M22 490		
100	M17 590	M22 590			

↑ Rated Ripple Current(mArms/85°C, 120Hz)  
 ↑ Case code