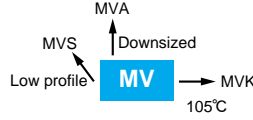


**Alchip™ - MV Series**

- Height 5.2 to 10.0mm
- Suitable to fit for downsized equipment
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS Compliant

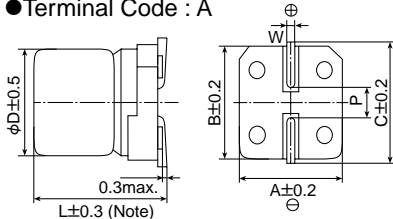


**◆ SPECIFICATIONS**

Items	Characteristics									
<b>Category</b> Temperature Range	-40 to +85°C									
<b>Rated Voltage Range</b>	4 to 63V <sub>dc</sub>									
<b>Capacitance Tolerance</b>	±20% (M) (at 20°C, 120Hz)									
<b>Leakage Current</b>	I=0.01CV or 3μA, whichever is greater. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 2 minutes)									
<b>Dissipation Factor (tanδ)</b>	Rated voltage (V <sub>dc</sub> )	4V	6.3V	10V	16V	25V	35V	50V	63V	
	tanδ (Max.)	B55	0.42	0.27	0.23	0.19	0.16	0.14	0.12	—
		D55 to F60	0.42	0.24	0.20	0.16	0.14	0.12	0.10	0.12
H63 to JA0	—	0.40	0.30	0.26	0.16	0.14	0.12	0.12		
<b>Low Temperature Characteristics (Max. Impedance Ratio)</b>	Rated voltage (V <sub>dc</sub> )	4V	6.3V	10V	16V	25V	35V	50V	63V	
	Z(-25°C)/Z(+20°C)	7	4	3	2	2	2	2	2	
	Z(-40°C)/Z(+20°C)	B55	17	10	8	6	4	3	3	—
		D55 to F60	15	10	8	6	4	3	3	3
H63 to JA0	—	10	8	6	4	3	3	3		
<b>Endurance</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2,000 hours (B55 size 1,000 hours) at 85°C.									
	Capacitance change	≤±20% of the initial value								
	D.F. (tanδ)	≤200% of the initial specified value								
	Leakage current	≤The initial specified value								
<b>Shelf Life</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 500 hours at 85°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.									
	Case code	B55				D55 to JA0				
	Capacitance change	≤±20% of the initial value				≤±15% of the initial value				
	D.F. (tanδ)	≤200% of the initial specified value				≤150% of the initial specified value				
	Leakage current	≤The initial specified value				≤The initial specified value				

**◆ DIMENSIONS [mm]**

● Terminal Code : A

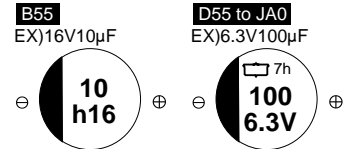


Note : L±0.5 for H63 to JA0

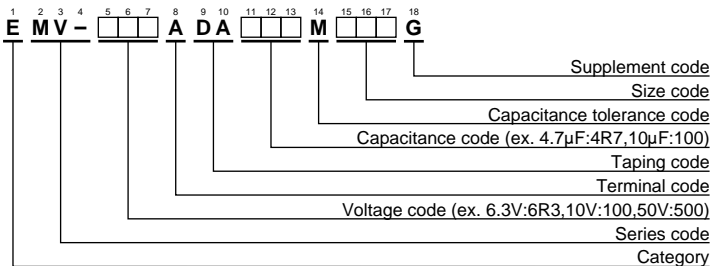
Size code	D	L	A	B	C	W	P
<b>B55</b>	3	5.2	3.3	3.3	3.7	0.45 to 0.75	0.8
<b>D55 &amp; D60</b>	4	*5.2	4.3	4.3	5.1	0.5 to 0.8	1.0
<b>E55 &amp; E60</b>	5	*5.2	5.3	5.3	5.9	0.5 to 0.8	1.4
<b>F55 &amp; F60</b>	6.3	*5.2	6.6	6.6	7.2	0.5 to 0.8	1.9
<b>H63</b>	8	6.3	8.3	8.3	9.0	0.5 to 0.8	2.3
<b>HA0</b>	8	10.0	8.3	8.3	9.0	0.7 to 1.1	3.1
<b>JA0</b>	10	10.0	10.3	10.3	11.0	0.7 to 1.1	4.5

\* : L=5.7 for D60, E60 and F60.

**◆ MARKING**



**◆ PART NUMBERING SYSTEM**



Please refer to "Product code guide (surface mount type)"

### ◆STANDARD RATINGS

WV (Vdc)	Cap (μF)	Size code	tanδ	Rated ripple current (mA <sub>RMS</sub> /85°C, 120Hz)	Part No.	WV (Vdc)	Cap (μF)	Size code	tanδ	Rated ripple current (mA <sub>RMS</sub> /85°C, 120Hz)	Part No.
4	(22)	(B55)	(0.42)	(14)	EMV-4R0ADA220MB55G	50	(0.10)	(B55)	(0.12)	(1.0)	EMV-500ADAR10MB55G
	33	D55	0.42	23	EMV-4R0ADA330MD55G		0.10	D55	0.10	1.3	EMV-500ADAR10MD55G
	47	D55	0.42	27	EMV-4R0ADA470MD55G		(0.15)	(B55)	(0.12)	(2.0)	EMV-500ADAR15MB55G
	(68)	(E55)	(0.42)	(38)	EMV-4R0ADA680ME55G		(0.15)	(D55)	(0.10)	(2.0)	EMV-500ADAR15MD55G
	100	E55	0.42	46	EMV-4R0ADA101ME55G		(0.22)	(B55)	(0.12)	(2.0)	EMV-500ADAR22MB55G
6.3	220	F55	0.42	74	EMV-4R0ADA221MF55G	0.22	D55	0.10	2.9	EMV-500ADAR22MD55G	
	(15)	(B55)	(0.27)	(14.5)	EMV-6R3ADA150MB55G	(0.33)	(B55)	(0.12)	(3.0)	EMV-500ADAR33MB55G	
	(22)	(B55)	(0.27)	(17.5)	EMV-6R3ADA220MB55G	0.33	D55	0.10	3.5	EMV-500ADAR33MD55G	
	22	D55	0.24	23	EMV-6R3ADA220MD55G	(0.47)	(B55)	(0.12)	(3.8)	EMV-500ADAR47MB55G	
	47	E55	0.24	38	EMV-6R3ADA470ME55G	0.47	D55	0.10	4.2	EMV-500ADAR47MD55G	
	100	F55	0.24	60	EMV-6R3ADA101MF55G	(0.68)	(B55)	(0.12)	(4.6)	EMV-500ADAR68MB55G	
10	330	H63	0.40	190	EMV-6R3ADA331MH63G	(0.68)	(D55)	(0.10)	(5.1)	EMV-500ADAR68MD55G	
	470	HA0	0.40	265	EMV-6R3ADA471MHA0G	(1.0)	(B55)	(0.12)	(5.6)	EMV-500ADA1R0MB55G	
	1,000	JA0	0.40	400	EMV-6R3ADA102MJA0G	1.0	D55	0.10	6.2	EMV-500ADA1R0MD55G	
	(10)	(B55)	(0.23)	(12.8)	EMV-100ADA100MB55G	(1.5)	(B55)	(0.12)	(6.9)	EMV-500ADA1R5MB55G	
	(15)	(D55)	(0.20)	(20)	EMV-100ADA150MD55G	(1.5)	(D55)	(0.10)	(7.5)	EMV-500ADA1R5MD55G	
	33	E55	0.20	35	EMV-100ADA330ME55G	(2.2)	(B55)	(0.12)	(8.3)	EMV-500ADA2R2MB55G	
16	(68)	(F55)	(0.20)	(54)	EMV-100ADA680MF55G	2.2	D55	0.10	10	EMV-500ADA2R2MD55G	
	100	F60	0.20	70	EMV-100ADA101MF60G	3.3	D55	0.10	14	EMV-500ADA3R3MD55G	
	220	H63	0.30	175	EMV-100ADA221MH63G	4.7	E55	0.10	19	EMV-500ADA4R7ME55G	
	(6.8)	(B55)	(0.19)	(11.6)	EMV-160ADA6R8MB55G	(6.8)	(F55)	(0.10)	(24)	EMV-500ADA6R8MF55G	
	(10)	(B55)	(0.19)	(14)	EMV-160ADA100MB55G	10	F55	0.10	29	EMV-500ADA100MF55G	
	10	D55	0.16	17	EMV-160ADA100MD55G	(15)	(F60)	(0.10)	(32)	EMV-500ADA150MF60G	
	(15)	(E55)	(0.16)	(26)	EMV-160ADA150ME55G	22	F60	0.10	45	EMV-500ADA220MF60G	
	22	E55	0.16	32	EMV-160ADA220ME55G	33	H63	0.12	95	EMV-500ADA330MH63G	
	47	F55	0.16	50	EMV-160ADA470MF55G	47	HA0	0.12	140	EMV-500ADA470MHA0G	
	(68)	(F60)	(0.16)	(78)	EMV-160ADA680MF60G	(68)	(JA0)	(0.12)	(170)	EMV-500ADA680MJA0G	
	220	HA0	0.26	215	EMV-160ADA221MHA0G	100	JA0	0.12	195	EMV-500ADA101MJA0G	
	330	HA0	0.26	270	EMV-160ADA331MHA0G	63	0.10	D55	0.12	1.3	EMV-630ADAR10MD55G
470	JA0	0.26	330	EMV-160ADA471MJA0G	(0.15)		(D55)	(0.12)	(2.0)	EMV-630ADAR15MD55G	
(4.7)	(B55)	(0.16)	(10.5)	EMV-250ADA4R7MB55G	0.22		D55	0.12	2.9	EMV-630ADAR22MD55G	
(6.8)	(D55)	(0.14)	(16)	EMV-250ADA6R8MD55G	0.33		D55	0.12	3.5	EMV-630ADAR33MD55G	
33	F55	0.14	45	EMV-250ADA330MF55G	0.47		D55	0.12	4.2	EMV-630ADAR47MD55G	
47	F60	0.14	65	EMV-250ADA470MF60G	(0.68)		(D55)	(0.12)	(5.1)	EMV-630ADAR68MD55G	
(68)	(H63)	(0.16)	(115)	EMV-250ADA680MH63G	1.0		D60	0.12	7.0	EMV-630ADA1R0MD60G	
100	H63	0.16	145	EMV-250ADA101MH63G	(1.5)		(D60)	(0.12)	(8.4)	EMV-630ADA1R5MD60G	
330	JA0	0.16	305	EMV-250ADA331MJA0G	2.2		D60	0.12	10	EMV-630ADA2R2MD60G	
(2.2)	(B55)	(0.14)	(7.7)	EMV-350ADA2R2MB55G	3.3		E60	0.12	13	EMV-630ADA3R3ME60G	
(3.3)	(B55)	(0.14)	(9.4)	EMV-350ADA3R3MB55G	4.7		F60	0.12	18.5	EMV-630ADA4R7MF60G	
4.7	D55	0.12	15	EMV-350ADA4R7MD55G	(6.8)		(F60)	(0.12)	(21)	EMV-630ADA6R8MF60G	
(6.8)	(E55)	(0.12)	(20)	EMV-350ADA6R8ME55G	10	HA0	0.12	46	EMV-630ADA100MHA0G		
10	E55	0.12	25	EMV-350ADA100ME55G	(15)	(HA0)	(0.12)	(52)	EMV-630ADA150MHA0G		
(15)	(F55)	(0.12)	(33)	EMV-350ADA150MF55G	22	HA0	0.12	69	EMV-630ADA220MHA0G		
22	F55	0.12	40	EMV-350ADA220MF55G	33	HA0	0.12	85	EMV-630ADA330MHA0G		
33	F60	0.12	55	EMV-350ADA330MF60G	47	HA0	0.12	101	EMV-630ADA470MHA0G		
47	H63	0.14	105	EMV-350ADA470MH63G	(68)	(JA0)	(0.12)	(125)	EMV-630ADA680MJA0G		
(68)	(HA0)	(0.14)	(157)	EMV-350ADA680MHA0G							
100	HA0	0.14	175	EMV-350ADA101MHA0G							
220	JA0	0.14	265	EMV-350ADA221MJA0G							

( ) : Second standard