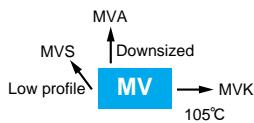


Alchip™-MV Series

- From 5.2L height
- Suitable to fit for downsized equipment
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS Compliant

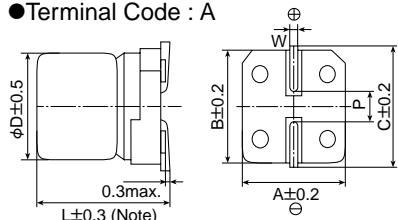


◆SPECIFICATIONS

Items	Characteristics																																																																																
Category Temperature Range	−40 to +85°C																																																																																
Rated Voltage Range	4 to 63Vdc																																																																																
Capacitance Tolerance	$\pm 20\%$ (M) (at 20°C, 120Hz)																																																																																
Leakage Current	$I = 0.01CV$ or $3\mu A$, whichever is greater. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 2 minutes)																																																																																
Dissipation Factor ($\tan\delta$)	<table border="1"> <thead> <tr> <th>Rated voltage (Vdc)</th> <th>4V</th> <th>6.3V</th> <th>10V</th> <th>16V</th> <th>25V</th> <th>35V</th> <th>50V</th> <th>63V</th> </tr> </thead> <tbody> <tr> <td>B55</td> <td>0.42</td> <td>0.27</td> <td>0.23</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>—</td> </tr> <tr> <td>D55 to F60</td> <td>0.42</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.12</td> </tr> <tr> <td>H63 to JA0</td> <td>—</td> <td>0.40</td> <td>0.30</td> <td>0.26</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.12</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Z(-25°C)/Z(+20°C)</th> <th>7</th> <th>4</th> <th>3</th> <th>2</th> <th>2</th> <th>2</th> <th>2</th> <th>2</th> </tr> </thead> <tbody> <tr> <td>B55</td> <td>17</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>—</td> </tr> <tr> <td>D55 to F60</td> <td>15</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> <tr> <td>H63 to JA0</td> <td>—</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Rated voltage (Vdc)	4V	6.3V	10V	16V	25V	35V	50V	63V	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	Z(-25°C)/Z(+20°C)	7	4	3	2	2	2	2	2	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	(at 20°C, 120Hz)							
Rated voltage (Vdc)	4V	6.3V	10V	16V	25V	35V	50V	63V																																																																									
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H63 to JA0	—	0.40	0.30	0.26	0.16	0.14	0.12	0.12																																																																									
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Low Temperature Characteristics (Max. Impedance Ratio)	<table border="1"> <thead> <tr> <th>Rated voltage (Vdc)</th> <th>4V</th> <th>6.3V</th> <th>10V</th> <th>16V</th> <th>25V</th> <th>35V</th> <th>50V</th> <th>63V</th> </tr> </thead> <tbody> <tr> <td>Z(-40°C)/Z(+20°C)</td> <td>7</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>B55</td> <td>17</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>—</td> </tr> <tr> <td>D55 to F60</td> <td>15</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> <tr> <td>H63 to JA0</td> <td>—</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Rated voltage (Vdc)	4V	6.3V	10V	16V	25V	35V	50V	63V	Z(-40°C)/Z(+20°C)	7	4	3	2	2	2	2	2	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	(at 120Hz)																																		
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H63 to JA0	—	10	8	6	4	3	3	3																																																																									
Endurance	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	$\leq \pm 20\%$ of the initial value																																																																															
	D.F. ($\tan\delta$)	$\leq 200\%$ of the initial specified value																																																																															
	Leakage current	\leq The initial specified value																																																																															
Shelf Life	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	$\leq \pm 20\%$ of the initial value		$\leq \pm 15\%$ of the initial value																																																																													
	D.F. ($\tan\delta$)	$\leq 200\%$ of the initial specified value		$\leq 150\%$ of the initial specified value																																																																													
	Leakage current	\leq The initial specified value		\leq The initial specified value																																																																													

◆DIMENSIONS [mm]

- Terminal Code : A

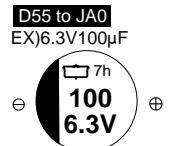
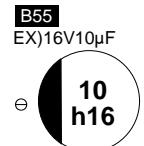


Note : L=0.5 for H63 to JA0

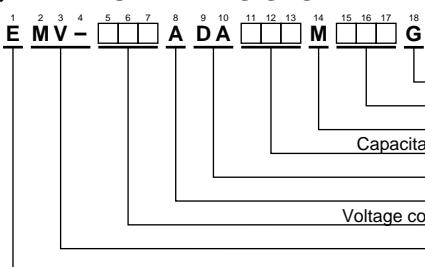
Size code	D	L	A	B	C	W	P
B55	3	5.2	3.3	3.3	3.7	0.45 to 0.75	0.8
D55 & D60	4	*5.2	4.3	4.3	5.1	0.5 to 0.8	1.0
E55 & E60	5	*5.2	5.3	5.3	5.9	0.5 to 0.8	1.4
F55 & F60	6.3	*5.2	6.6	6.6	7.2	0.5 to 0.8	1.9
H63	8	6.3	8.3	8.3	9.0	0.5 to 0.8	2.3
HA0	8	10.0	8.3	8.3	9.0	0.7 to 1.1	3.1
JA0	10	10.0	10.3	10.3	11.0	0.7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



SURFACE MOUNT ALUMINUM ELECTROLYTIC CAPACITORS

Standard, 85°C

Alchip™-MV Series

◆STANDARD RATINGS

WV (Vdc)	Cap (μ F)	Size code	$\tan\delta$	Rated ripple current (mArms/ 85°C,120Hz)	Part No.
4	22	B55	0.42	14	EMV-4R0ADA220MB55G
	33	D55	0.42	23	EMV-4R0ADA330MD55G
	47	D55	0.42	27	EMV-4R0ADA470MD55G
	(68)	(E55)	(0.42)	(38)	EMV-4R0ADA680ME55G
	100	E55	0.42	46	EMV-4R0ADA101ME55G
	220	F55	0.42	74	EMV-4R0ADA221MF55G
6.3	(15)	(B55)	(0.27)	(14.5)	EMV-6R3ADA150MB55G
	22	B55	0.27	17.5	EMV-6R3ADA220MB55G
	22	D55	0.24	23	EMV-6R3ADA220MD55G
	47	E55	0.24	38	EMV-6R3ADA470ME55G
	100	F55	0.24	60	EMV-6R3ADA101MF55G
	330	H63	0.40	190	EMV-6R3ADA331MH63G
	470	HA0	0.40	265	EMV-6R3ADA471MHA0G
	1,000	JA0	0.40	400	EMV-6R3ADA102MJA0G
10	10	B55	0.23	12.8	EMV-100ADA100MB55G
	(15)	(D55)	(0.20)	(20)	EMV-100ADA150MD55G
	33	E55	0.20	35	EMV-100ADA330ME55G
	(68)	(F55)	(0.20)	(54)	EMV-100ADA680MF55G
	100	F60	0.20	70	EMV-100ADA101MF60G
	220	H63	0.30	175	EMV-100ADA221MH63G
16	(6.8)	(B55)	(0.19)	(11.6)	EMV-160ADA6R8MB55G
	10	B55	0.19	14	EMV-160ADA100MB55G
	10	D55	0.16	17	EMV-160ADA100MD55G
	(15)	(E55)	(0.16)	(26)	EMV-160ADA150ME55G
	22	E55	0.16	32	EMV-160ADA220ME55G
	47	F55	0.16	50	EMV-160ADA470MF55G
	(68)	(F60)	(0.16)	(78)	EMV-160ADA680MF60G
	220	HA0	0.26	215	EMV-160ADA221MHA0G
	330	HA0	0.26	270	EMV-160ADA331MHA0G
	470	JA0	0.26	330	EMV-160ADA471MJA0G
	4.7	B55	0.16	10.5	EMV-250ADA4R7MB55G
	(6.8)	(D55)	(0.14)	(16)	EMV-250ADA6R8MD55G
25	33	F55	0.14	45	EMV-250ADA330MF55G
	47	F60	0.14	65	EMV-250ADA470MF60G
	(68)	(H63)	(0.16)	(115)	EMV-250ADA680MH63G
	100	H63	0.16	145	EMV-250ADA101MH63G
	330	JA0	0.16	305	EMV-250ADA331MJA0G
	2.2	B55	0.14	7.7	EMV-350ADA2R2MB55G
35	3.3	B55	0.14	9.4	EMV-350ADA3R3MB55G
	4.7	D55	0.12	15	EMV-350ADA4R7MD55G
	(6.8)	(E55)	(0.12)	(20)	EMV-350ADA6R8ME55G
	10	E55	0.12	25	EMV-350ADA100ME55G
	(15)	(F55)	(0.12)	(33)	EMV-350ADA150MF55G
	22	F55	0.12	40	EMV-350ADA220MF55G
	33	F60	0.12	55	EMV-350ADA330MF60G
	47	H63	0.14	105	EMV-350ADA470MH63G
	(68)	(HA0)	(0.14)	(157)	EMV-350ADA680MHA0G
	100	HA0	0.14	175	EMV-350ADA101MHA0G
	220	JA0	0.14	265	EMV-350ADA221MJA0G

() : Second standard

WV (Vdc)	Cap (μ F)	Size code	$\tan\delta$	Rated ripple current (mArms/ 85°C,120Hz)	Part No.
50	0.10	B55	0.12	1.0	EMV-500ADAR10MB55G
	0.10	D55	0.10	1.3	EMV-500ADAR10MD55G
	(0.15)	(B55)	(0.12)	(2.0)	EMV-500ADAR15MB55G
	(0.15)	(D55)	(0.10)	(2.0)	EMV-500ADAR15MD55G
	0.22	B55	0.12	2.0	EMV-500ADAR22MB55G
	0.22	D55	0.10	2.9	EMV-500ADAR22MD55G
	0.33	B55	0.12	3.0	EMV-500ADAR33MB55G
	0.33	D55	0.10	3.5	EMV-500ADAR33MD55G
	0.47	B55	0.12	3.8	EMV-500ADAR47MB55G
	0.47	D55	0.10	4.2	EMV-500ADAR47MD55G
	(0.68)	(B55)	(0.12)	(4.6)	EMV-500ADAR68MB55G
	(0.68)	(D55)	(0.10)	(5.1)	EMV-500ADAR68MD55G
	1.0	B55	0.12	5.6	EMV-500ADA1R0MB55G
	1.0	D55	0.10	6.2	EMV-500ADA1R0MD55G
	(1.5)	(B55)	(0.12)	(6.9)	EMV-500ADA1R5MB55G
	(1.5)	(D55)	(0.10)	(7.5)	EMV-500ADA1R5MD55G
	2.2	B55	0.12	8.3	EMV-500ADA2R2MB55G
	2.2	D55	0.10	10	EMV-500ADA2R2MD55G
63	3.3	D55	0.10	14	EMV-500ADA3R3MD55G
	4.7	E55	0.10	19	EMV-500ADA4R7ME55G
	(6.8)	(F55)	(0.10)	(24)	EMV-500ADA6R8MF55G
	10	F55	0.10	29	EMV-500ADA100MF55G
	(15)	(F60)	(0.10)	(32)	EMV-500ADA150MF60G
	22	F60	0.10	45	EMV-500ADA220MF60G
	33	H63	0.12	95	EMV-500ADA330MH63G
	47	HA0	0.12	140	EMV-500ADA470MHA0G
	(68)	(JA0)	(0.12)	(170)	EMV-500ADA680MJA0G
	100	JA0	0.12	195	EMV-500ADA101MJA0G
	0.10	D55	0.12	1.3	EMV-630ADAR10MD55G
	(0.15)	(D55)	(0.12)	(2.0)	EMV-630ADAR15MD55G
	0.22	D55	0.12	2.9	EMV-630ADAR22MD55G
	0.33	D55	0.12	3.5	EMV-630ADAR33MD55G
	0.47	D55	0.12	4.2	EMV-630ADAR47MD55G
	(0.68)	(D55)	(0.12)	(5.1)	EMV-630ADAR68MD55G
	1.0	D60	0.12	7.0	EMV-630ADA1R0MD60G
	(1.5)	(D60)	(0.12)	(8.4)	EMV-630ADA1R5MD60G
	2.2	D60	0.12	10	EMV-630ADA2R2MD60G
63	3.3	E60	0.12	13	EMV-630ADA3R3ME60G
	4.7	F60	0.12	18.5	EMV-630ADA4R7MF60G
	(6.8)	(F60)	(0.12)	(21)	EMV-630ADA6R8MF60G
	10	HA0	0.12	46	EMV-630ADA100MHA0G
	(15)	(HA0)	(0.12)	(52)	EMV-630ADA150MHA0G
	22	HA0	0.12	69	EMV-630ADA220MHA0G
	33	HA0	0.12	85	EMV-630ADA330MHA0G
	47	HA0	0.12	101	EMV-630ADA470MHA0G
	(68)	(JA0)	(0.12)	(125)	EMV-630ADA680MJA0G