

Alchip™-**MVE** Series

- Rated voltage range : 6.3 to 450V, capacitance range : 0.47 to 6,800μF
- Endurance : 1,000 to 2,000 hours at 105°C
- Case size range : φ4×5.2L to φ18×21.5L
- Solvent resistant type except 100 to 450V_{dc} (see PRECAUTIONS AND GUIDELINES)
- RoHS Compliant

MVE

↓
Downsized
Expanded case sizes
MVK



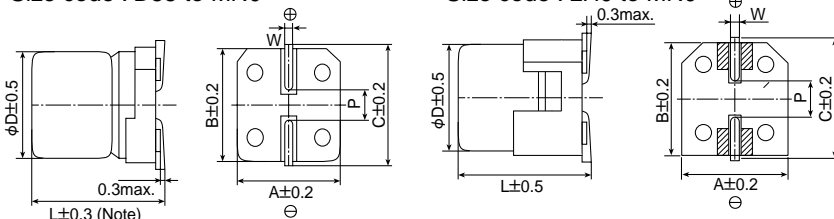
◆ SPECIFICATIONS

Items	Characteristics		
Category	-40 to +105°C		
Temperature Range	-40 to +105°C		
Rated Voltage Range	6.3 to 450V _{dc}		
Capacitance Tolerance	±20%(M) (20°C, 120Hz)		
Leakage Current	Rated voltage(V _{dc})	6.3 to 100V 160 to 450V	
	D55 to JA0	I=0.01CV or 3μA, whichever is greater (2 minutes) —	
	KE0 to MN0	I=0.03CV or 4μA, whichever is greater (1 minute) I=0.04CV+100μA (1minute)	
	Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (20°C)		
Dissipation Factor (tanδ)	See STANDARD RATINGS (20°C, 120Hz)		
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	6.3V 10V 16V 25V 35V 50V 63V 100V 160 to 250V 400 to 450V	
	D55 to JA0	Z(-25°C)/Z(+20°C)	4 3 2 2 2 2 2 3 — —
		Z(-40°C)/Z(+20°C)	12 8 6 4 3 3 3 4 — —
	KE0 to MN0	Z(-25°C)/Z(+20°C)	5 4 3 2 2 2 2 2 3 6
Z(-40°C)/Z(+20°C)		10 8 6 4 3 3 3 3 6 10	
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for the specified period of time at 105°C.		
	Size code	D55 to F80 HA0 to MN0	
	Time	1,000 hours 2,000 hours	
	Capacitance change	≤±30% of the initial value ≤±20% of the initial value	
	D.F. (tanδ)	≤300% of the initial specified value ≤200% of the initial specified value	
	Leakage current	≤The initial specified value ≤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 (500 hours for B55 to F80 size) at 105°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.		
	Size code	D55 to F80 HA0 to MN0	
	Capacitance change	≤±25% of the initial value ≤±20% of the initial value	
	D.F. (tanδ)	≤200% of the initial specified value ≤200% of the initial specified value	
	Leakage current	≤The initial specified value ≤The initial specified value	

◆ DIMENSIONS [mm]

- Terminal Code : A
- Size code : D55 to MN0

- Terminal Code : G
- Size code : LH0 to MN0

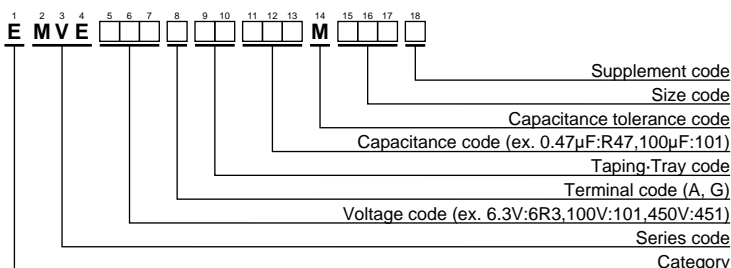


Note : L±0.5 for HA0 to MN0

▨ : Dummy terminals

Size code	D	L	A	B	C	W	P
D55	4	5.2	4.3	4.3	5.1	0.5 to 0.8	1.0
E55	5	5.2	5.3	5.3	5.9	0.5 to 0.8	1.4
F55	6.3	5.2	6.6	6.6	7.2	0.5 to 0.8	1.9
F60	6.3	5.7	6.6	6.6	7.2	0.5 to 0.8	1.9
F80	6.3	7.7	6.6	6.6	7.2	0.5 to 0.8	1.9
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
KE0	12.5	13.5	13.0	13.0	13.7	1.0 to 1.3	4.2
KG5	12.5	16.0	13.0	13.0	13.7	1.0 to 1.3	4.2
LH0	16	16.5	17.0	17.0	18.0	1.0 to 1.3	6.5
LN0	16	21.5	17.0	17.0	18.0	1.0 to 1.3	6.5
MH0	18	16.5	19.0	19.0	20.0	1.0 to 1.3	6.5
MN0	18	21.5	19.0	19.0	20.0	1.0 to 1.3	6.5

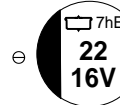
◆ PART NUMBERING SYSTEM



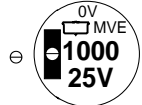
Please refer to "Product code guide (surface mount type)"

◆ MARKING

D55 to JA0
Ex)16V22μF



KE0 to MN0
Ex)25V1,000μF



◆STANDARD RATINGS

□ is not solvent resistant.

WV (Vdc)	Cap (μF)	Size code	tanδ	Rated ripple current (mA rms/105°C, 120Hz)	Part No.	WV (Vdc)	Cap (μF)	Size code	tanδ	Rated ripple current (mA rms/105°C, 120Hz)	Part No.
6.3	22	D55	0.30	22	EMVE6R3ADA220MD55G	35	470	KE0	0.22	520	EMVE350ARA471MKE0S
	33	E55	0.30	34	EMVE6R3ADA330ME55G		470	LH0	0.22	650	EMVE350□DA471MLH0S
	47	E55	0.30	38	EMVE6R3ADA470ME55G		1,000	LH0	0.22	750	EMVE350□DA102MLH0S
	100	F55	0.30	69	EMVE6R3ADA101MF55G		1,000	MH0	0.22	1,000	EMVE350□DA102MMH0S
	220	F80	0.45	120	EMVE6R3ADA221MF80G		2,200	MN0	0.24	1,450	EMVE350□DA222MMN0S
	330	HA0	0.40	290	EMVE6R3ADA331MHA0G		0.47	D55	0.12	5.0	EMVE500ADAR47MD55G
	470	HA0	0.45	320	EMVE6R3ADA471MHA0G		1.0	D55	0.12	8.0	EMVE500ADA1R0MD55G
	680	HA0	0.45	340	EMVE6R3ADA681MHA0G		2.2	D55	0.12	12	EMVE500ADA2R2MD55G
	1,000	JA0	0.40	410	EMVE6R3ADA102MJA0G		3.3	D55	0.12	15	EMVE500ADA3R3MD55G
	1,500	JA0	0.45	550	EMVE6R3ADA152MJA0G		4.7	E55	0.12	20	EMVE500ADA4R7ME55G
	2,200	KE0	0.40	680	EMVE6R3ARA222MKE0S		10	F55	0.12	32	EMVE500ADA100MF55G
	2,200	LH0	0.40	840	EMVE6R3□DA222MLH0S		(22)	(F60)	(0.12)	(47)	EMVE500ADA220MF60G
	3,300	KG5	0.42	850	EMVE6R3ARA332MKG5S		33	F80	0.14	65	EMVE500ADA330MF80G
	3,300	MH0	0.42	1,000	EMVE6R3□DA332MMH0S		47	F80	0.14	80	EMVE500ADA470MF80G
	4,700	LNO	0.44	1,200	EMVE6R3□DA472MLN0S		100	HA0	0.14	230	EMVE500ADA101MHA0G
	4,700	MH0	0.44	1,200	EMVE6R3□DA472MMH0S		220	JA0	0.14	375	EMVE500ADA221MJA0G
6,800	LNO	0.48	1,200	EMVE6R3□DA682MLN0S	330	KE0	0.18	500	EMVE500ARA331MKE0S		
6,800	MN0	0.48	1,350	EMVE6R3□DA682MMN0S	330	LH0	0.18	600	EMVE500□DA331MLH0S		
10	22	E55	0.24	30	EMVE100ADA220ME55G	470	LH0	0.18	700	EMVE500□DA471MLH0S	
	33	E55	0.24	34	EMVE100ADA330ME55G	470	MH0	0.18	750	EMVE500□DA471MMH0S	
	47	F55	0.24	48	EMVE100ADA470MF55G	1,000	MN0	0.18	1,200	EMVE500□DA102MMN0S	
	100	F55	0.30	69	EMVE100ADA101MF55G	0.47	D55	0.12	5.0	EMVE630ADAR47MD55G	
	150	F80	0.35	100	EMVE100ADA151MF80G	1.0	D55	0.12	8.0	EMVE630ADA1R0MD55G	
	220	F80	0.35	120	EMVE100ADA221MF80G	2.2	D55	0.12	12	EMVE630ADA2R2MD55G	
	330	HA0	0.35	290	EMVE100ADA331MHA0G	3.3	E55	0.12	17	EMVE630ADA3R3ME55G	
	470	HA0	0.35	320	EMVE100ADA471MHA0G	4.7	F55	0.12	22	EMVE630ADA4R7MF55G	
	1,000	JA0	0.35	410	EMVE100ADA102MJA0G	10	F55	0.12	32	EMVE630ADA100MF55G	
	2,200	KG5	0.36	750	EMVE100ARA222MKG5S	22	F80	0.12	58	EMVE630ADA220MF80G	
	2,200	LH0	0.36	850	EMVE100□DA222MLH0S	33	HA0	0.12	140	EMVE630ADA330MHA0G	
	3,300	LH0	0.38	1,000	EMVE100□DA332MLH0S	47	HA0	0.12	170	EMVE630ADA470MHA0G	
	3,300	MH0	0.38	1,100	EMVE100□DA332MMH0S	100	JA0	0.12	310	EMVE630ADA101MJA0G	
	4,700	LNO	0.40	1,300	EMVE100□DA472MLN0S	220	KE0	0.14	470	EMVE630ARA221MKE0S	
	4,700	MN0	0.40	1,350	EMVE100□DA472MMN0S	220	LH0	0.14	560	EMVE630□DA221MLH0S	
	16	10	D55	0.20	17	EMVE160ADA100MD55G	330	LH0	0.14	700	EMVE630□DA331MLH0S
22		E55	0.20	30	EMVE160ADA220ME55G	330	MH0	0.14	750	EMVE630□DA331MMH0S	
33		F55	0.20	45	EMVE160ADA330MF55G	470	LNO	0.14	900	EMVE630□DA471MLN0S	
47		F55	0.20	48	EMVE160ADA470MF55G	470	MH0	0.14	900	EMVE630□DA471MMH0S	
100		F55	0.26	69	EMVE160ADA101MF55G	22	HA0	0.12	100	EMVE101ADA220MHA0G	
150		F80	0.28	100	EMVE160ADA151MF80G	33	JA0	0.12	150	EMVE101ADA330MJA0G	
220		F80	0.28	120	EMVE160ADA221MF80G	47	KE0	0.10	250	EMVE101ARA470MKE0S	
330		HA0	0.28	290	EMVE160ADA331MHA0G	68	KE0	0.10	300	EMVE101ARA680MKE0S	
470		HA0	0.28	320	EMVE160ADA471MHA0G	100	KE0	0.10	380	EMVE101ARA101MKE0S	
680		JA0	0.28	470	EMVE160ADA681MJA0G	100	LH0	0.10	450	EMVE101□DA101MLH0S	
1,000		KE0	0.30	550	EMVE160ARA102MKE0S	220	LNO	0.10	750	EMVE101□DA221MLN0S	
1,000		LH0	0.30	650	EMVE160□DA102MLH0S	220	MH0	0.10	750	EMVE101□DA221MMH0S	
2,200		LH0	0.32	950	EMVE160□DA222MLH0S	330	MN0	0.10	980	EMVE101□DA331MMN0S	
2,200		MH0	0.32	1,000	EMVE160□DA222MMH0S	33	KE0	0.15	95	EMVE161ARA330MKE0S	
3,300		LNO	0.34	1,200	EMVE160□DA332MLN0S	47	LH0	0.15	260	EMVE161□DA470MLH0S	
3,300		MH0	0.34	1,200	EMVE160□DA332MMH0S	68	LNO	0.15	320	EMVE161□DA680MLN0S	
25	10	E55	0.16	27	EMVE250ADA100ME55G	68	MH0	0.15	320	EMVE161□DA680MMH0S	
	22	F55	0.16	44	EMVE250ADA220MF55G	100	LNO	0.15	380	EMVE161□DA101MLN0S	
	33	F55	0.16	50	EMVE250ADA330MF55G	10	KE0	0.15	80	EMVE201ARA100MKE0S	
	47	F55	0.16	60	EMVE250ADA470MF55G	22	KG5	0.15	110	EMVE201ARA220MKG5S	
	100	F80	0.18	100	EMVE250ADA101MF80G	33	LH0	0.15	220	EMVE201□DA330MLH0S	
	150	HA0	0.18	240	EMVE250ADA151MHA0G	47	LNO	0.15	270	EMVE201□DA470MLN0S	
	220	HA0	0.18	320	EMVE250ADA221MHA0G	47	MH0	0.15	270	EMVE201□DA470MMH0S	
	330	JA0	0.16	450	EMVE250ADA331MJA0G	68	MN0	0.15	330	EMVE201□DA680MMN0S	
	470	JA0	0.18	490	EMVE250ADA471MJA0G	4.7	KE0	0.15	65	EMVE251ARA4R7MKE0S	
	1,000	LH0	0.26	820	EMVE250□DA102MLH0S	10	KG5	0.15	105	EMVE251ARA100MKG5S	
	1,000	MH0	0.26	880	EMVE250□DA102MMH0S	22	LH0	0.15	180	EMVE251□DA220MLH0S	
	2,200	LNO	0.28	1,250	EMVE250□DA222MLN0S	33	LNO	0.15	230	EMVE251□DA330MLN0S	
	2,200	MN0	0.28	1,300	EMVE250□DA222MMN0S	33	MH0	0.15	230	EMVE251□DA330MMH0S	
	35	4.7	D55	0.14	16	EMVE350ADA4R7MD55G	47	MN0	0.15	280	EMVE251□DA470MMN0S
		10	E55	0.14	27	EMVE350ADA100ME55G	4.7	KG5	0.20	50	EMVE401ARA4R7MKG5S
		22	F55	0.14	44	EMVE350ADA220MF55G	10	LH0	0.20	85	EMVE401□DA100MLH0S
(33)		(F60)	(0.14)	(54)	EMVE350ADA330MF60G	22	MN0	0.20	130	EMVE401□DA220MMN0S	
47		F80	0.16	80	EMVE350ADA470MF80G	3.3	KE0	0.20	40	EMVE451ARA3R3MKE0S	
100		F80	0.16	100	EMVE350ADA101MF80G	4.7	KG5	0.20	50	EMVE451ARA4R7MKG5S	
150		HA0	0.16	260	EMVE350ADA151MHA0G	10	LH0	0.20	85	EMVE451□DA100MLH0S	
220		JA0	0.16	375	EMVE350ADA221MJA0G	22	MN0	0.20	130	EMVE451□DA220MMN0S	
330		JA0	0.16	450	EMVE350ADA331MJA0G						

□ : Enter the appropriate terminal code.
() : Second standard