

**Alchip® MVE Series**

- Rated voltage range : 6.3 to 450V, capacitance range : 0.47 to 6800μF
- Endurance : 1000 to 2000 hours at 105°C
- Case size range : φ4×5.2L to φ18×21.5L
- Solvent-proof type except 100 to 450V<sub>dc</sub> (see PRECAUTIONS AND GUIDELINES)
- Pb-free design

MVE

↑ downsized size extended  
MVK



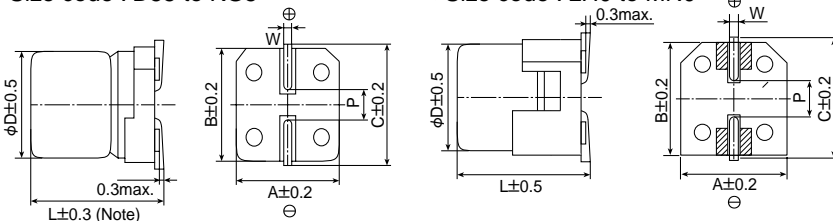
◆ **SPECIFICATIONS**

Items	Characteristics											
<b>Category Temperature Range</b>	-40 to +105°C											
<b>Rated Voltage Range</b>	6.3 to 450V <sub>dc</sub>											
<b>Capacitance Tolerance</b>	±20%(M) (20°C, 120Hz)											
<b>Leakage Current</b>	Rated voltage(V <sub>dc</sub> )	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)											
<b>Dissipation Factor (tanδ)</b>	See STANDARD RATINGS (20°C, 120Hz)											
<b>Low Temperature Characteristics (Max. Impedance Ratio)</b>	Rated voltage (V <sub>dc</sub> )	6.3V	10V	16V	25V	35V	50V	63V	100V	160 to 250V	400 to 450V	(120Hz)
		Z(-25°C)/Z(+20°C)		4	3	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	3	
Z(-40°C)/Z(+20°C)		10	8	6	4	3	3	3	6	10		
<b>Endurance</b>	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	1000 hours					2000 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					
<b>Shelf Life</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours (500 hours for B55 to F80 size) at 105°C without voltage applied.											
	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 KG5

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

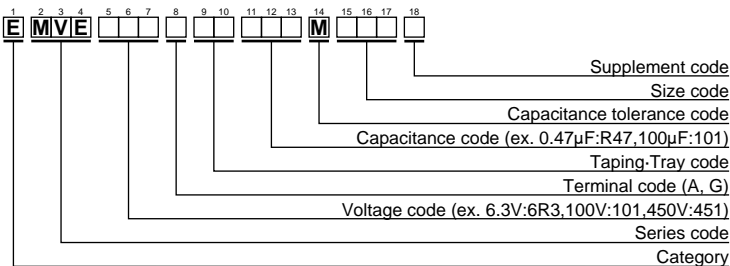


Note : L±0.5 for HA0 to KG5

▨ : Dummy terminals

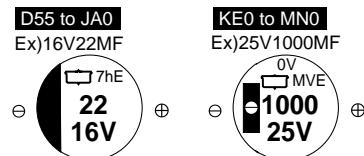
Size code	D	L	A	B	C	W	P
D55	4	5.2	4.3	4.3	5.1	0.5 to 0.8	1.0
E55	5	5.2	5.3	5.3	5.9	0.5 to 0.8	1.4
F55	6.3	5.2	6.6	6.6	7.2	0.5 to 0.8	1.9
F60	6.3	5.7	6.6	6.6	7.2	0.5 to 0.8	1.9
F80	6.3	7.7	6.6	6.6	7.2	0.5 to 0.8	1.9
HA0	8	10.0	8.3	8.3	9.0	0.7 to 1.1	3.1
JA0	10	10.0	10.3	10.3	11.0	0.7 to 1.1	4.5
KE0	12.5	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 "A guide to global code (surface mount type)"

◆ **MARKING**



## Alchip® MVE Series

### ◆ STANDARD RATINGS

□ is non solvent-proof.

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	EMVE350A□□471MKE0S	
	33	E55	0.30	34	EMVE6R3ADA330ME55G		470	LH0	0.22	650	EMVE350GTR471MLH0S	
	47	E55	0.30	38	EMVE6R3ADA470ME55G		1000	LH0	0.22	750	EMVE350GTR102MLH0S	
	100	F55	0.30	69	EMVE6R3ADA101MF55G		1000	MH0	0.22	1000	EMVE350GTR102MMH0S	
	220	F80	0.45	120	EMVE6R3ADA221MF80G		2200	MN0	0.24	1450	EMVE350GTR222MMN0S	
	330	HA0	0.40	290	EMVE6R3ADA331MHA0G		50	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
	1000	JA0	0.40	410	EMVE6R3ADA102MJA0G			3.3	D55	0.12	15	EMVE500ADA3R3MD55G
	1500	JA0	0.45	550	EMVE6R3ADA152MJA0G			4.7	E55	0.12	20	EMVE500ADA4R7ME55G
	2200	KE0	0.40	680	EMVE6R3A□□222MKE0S			10	F55	0.12	32	EMVE500ADA100MF55G
	2200	LH0	0.40	840	EMVE6R3GTR222MLH0S			22	F60	0.12	47	EMVE500ADA220MF60G
	3300	KG5	0.42	850	EMVE6R3A□□332MKG5S			33	F80	0.14	65	EMVE500ADA330MF80G
	3300	MH0	0.42	1000	EMVE6R3GTR332MMH0S			47	F80	0.14	80	EMVE500ADA470MF80G
	4700	LN0	0.44	1200	EMVE6R3GTR472MLN0S			100	HA0	0.14	230	EMVE500ADA101MHA0G
	4700	MH0	0.44	1200	EMVE6R3GTR472MMH0S		220	JA0	0.14	375	EMVE500ADA221MJA0G	
6800	LN0	0.48	1200	EMVE6R3GTR682MLN0S	330	KE0	0.18	500	EMVE500A□□331MKE0S			
6800	MN0	0.48	1350	EMVE6R3GTR682MMN0S	330	LH0	0.18	600	EMVE500GTR331MLH0S			
22	E55	0.24	30	EMVE100ADA220ME55G	470	LH0	0.18	700	EMVE500GTR471MLH0S			
33	E55	0.24	34	EMVE100ADA330ME55G	470	MH0	0.18	750	EMVE500GTR471MMH0S			
47	F55	0.24	48	EMVE100ADA470MF55G	1000	MN0	0.18	1200	EMVE500GTR102MMN0S			
100	F55	0.30	69	EMVE100ADA101MF55G	63	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		
1000	JA0	0.35	410	EMVE100ADA102MJA0G		10	F55	0.12	32	EMVE630ADA100MF55G		
2200	KG5	0.36	750	EMVE100A□□222MKG5S		22	F80	0.12	58	EMVE630ADA220MF80G		
2200	LH0	0.36	850	EMVE100GTR222MLH0S		33	HA0	0.12	140	EMVE630ADA330MHA0G		
3300	LH0	0.38	1000	EMVE100GTR332MLH0S		47	HA0	0.12	170	EMVE630ADA470MHA0G		
3300	MH0	0.38	1100	EMVE100GTR332MMH0S		100	JA0	0.12	310	EMVE630ADA101MJA0G		
4700	LN0	0.40	1300	EMVE100GTR472MLN0S	220	KE0	0.14	470	EMVE630A□□221MKE0S			
4700	MN0	0.40	1350	EMVE100GTR472MMN0S	220	LH0	0.14	560	EMVE630GTR221MLH0S			
10	D55	0.20	17	EMVE160ADA100MD55G	330	LH0	0.14	700	EMVE630GTR331MLH0S			
22	E55	0.20	30	EMVE160ADA220ME55G	330	MH0	0.14	750	EMVE630GTR331MMH0S			
33	F55	0.20	45	EMVE160ADA330MF55G	470	LN0	0.14	900	EMVE630GTR471MLN0S			
47	F55	0.20	48	EMVE160ADA470MF55G	470	MH0	0.14	900	EMVE630GTR471MMH0S			
100	F55	0.26	69	EMVE160ADA101MF55G	100	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	EMVE101A□□470MKE0S		
330	HA0	0.28	290	EMVE160ADA331MHA0G		68	KE0	0.10	300	EMVE101A□□680MKE0S		
470	HA0	0.28	320	EMVE160ADA471MHA0G		100	KE0	0.10	380	EMVE101A□□101MKE0S		
680	JA0	0.28	470	EMVE160ADA681MJA0G		100	LH0	0.10	450	EMVE101GTR101MLH0S		
1000	KE0	0.30	550	EMVE160A□□102MKE0S		220	LN0	0.10	750	EMVE101GTR221MLN0S		
1000	LH0	0.30	650	EMVE160GTR102MLH0S		220	MH0	0.10	750	EMVE101GTR221MMH0S		
2200	LH0	0.32	950	EMVE160GTR222MLH0S		330	MN0	0.10	980	EMVE101GTR331MMN0S		
2200	MH0	0.32	1000	EMVE160GTR222MMH0S		160	33	KE0	0.15	95	EMVE161A□□330MKE0S	
3300	LN0	0.34	1200	EMVE160GTR332MLN0S	47		LH0	0.15	260	EMVE161GTR470MLH0S		
3300	MH0	0.34	1200	EMVE160GTR332MMH0S	68		LN0	0.15	320	EMVE161GTR680MLN0S		
10	E55	0.16	27	EMVE250ADA100ME55G	68		MH0	0.15	320	EMVE161GTR680MMH0S		
22	F55	0.16	44	EMVE250ADA220MF55G	100	LN0	0.15	380	EMVE161GTR101MLN0S			
33	F55	0.16	50	EMVE250ADA330MF55G	200	10	KE0	0.15	80	EMVE201A□□100MKE0S		
47	F55	0.16	60	EMVE250ADA470MF55G		22	KG5	0.15	110	EMVE201A□□220MKG5S		
100	F80	0.18	100	EMVE250ADA101MF80G		33	LH0	0.15	220	EMVE201GTR330MLH0S		
150	HA0	0.18	240	EMVE250ADA151MHA0G		47	LN0	0.15	270	EMVE201GTR470MLN0S		
220	HA0	0.18	320	EMVE250ADA221MHA0G		47	MH0	0.15	270	EMVE201GTR470MMH0S		
330	JA0	0.16	450	EMVE250ADA331MJA0G	68	MN0	0.15	330	EMVE201GTR680MMN0S			
470	JA0	0.18	490	EMVE250ADA471MJA0G	250	4.7	KE0	0.15	65	EMVE251A□□47R7MKE0S		
1000	LH0	0.26	820	EMVE250GTR102MLH0S		10	KG5	0.15	105	EMVE251A□□100MKG5S		
1000	MH0	0.26	880	EMVE250GTR102MMH0S		22	LH0	0.15	180	EMVE251GTR220MLH0S		
2200	LN0	0.28	1250	EMVE250GTR222MLN0S		33	LN0	0.15	230	EMVE251GTR330MLN0S		
2200	MN0	0.28	1300	EMVE250GTR222MMN0S		33	MH0	0.15	230	EMVE251GTR330MMH0S		
4.7	D55	0.14	16	EMVE350ADA4R7MD55G	47	MN0	0.15	280	EMVE251GTR470MMN0S			
10	E55	0.14	27	EMVE350ADA100ME55G	400	4.7	KG5	0.20	50	EMVE401A□□47R7MKG5S		
22	F55	0.14	44	EMVE350ADA220MF55G		10	LH0	0.20	85	EMVE401GTR100MLH0S		
33	F60	0.14	54	EMVE350ADA330MF60G		22	MN0	0.20	130	EMVE401GTR220MMN0S		
47	F80	0.16	80	EMVE350ADA470MF80G	450	3.3	KE0	0.20	40	EMVE451A□□3R3MKE0S		
100	F80	0.16	100	EMVE350ADA101MF80G		4.7	KG5	0.20	50	EMVE451A□□47R7MKG5S		
150	HA0	0.16	260	EMVE350ADA151MHA0G		10	LH0	0.20	85	EMVE451GTR100MLH0S		
220	JA0	0.16	375	EMVE350ADA221MJA0G	22	MN0	0.20	130	EMVE451GTR220MMN0S			
330	JA0	0.16	450	EMVE350ADA331MJA0G								

□ : Taping / Tray code