Alchip™-MVE Series

MVE → MVL Longer life



- Endurance : 1,000 to 2,000 hours at 105℃
- Case size range : φ6.3×5.2L to φ18×21.5L
- Solvent resistant type except 100Vdc (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.

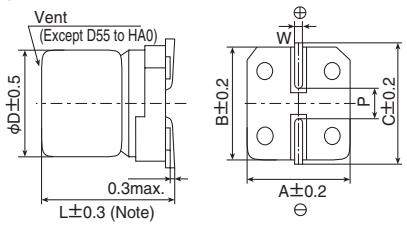
◆SPECIFICATIONS

Items	Characteristics									
Category Temperature Range	-40 to +105℃									
Rated Voltage Range	6.3 to 100Vdc									
Capacitance Tolerance	±20%(M) (at 20℃, 120Hz)									
Leakage Current	F55 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)								
	Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20℃)									
Dissipation Factor (tan δ)	See STANDARD RATINGS (at 20℃, 120Hz)									
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (Vdc)		6.3V	10V	16V	25V	35V	50V	63V	100V
	F55 to JA0	Z(-25℃)/Z(+20℃)	4	3	2	2	2	2	2	3
		Z(-40℃)/Z(+20℃)	12	8	6	4	3	3	3	4
	KE0 to MN0	Z(-25℃)/Z(+20℃)	5	4	3	2	2	2	2	2
		Z(-40℃)/Z(+20℃)	10	8	6	4	3	3	3	3 (at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for the specified period of time at 105℃.									
	Size code	F55 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. (tan δ)	≦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℃ after exposing them for 1,000 hours (500 hours for F55 to F80 size) at 105℃ 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	F55 to F80	HA0 to MN0							
	Capacitance change	≦±25% of the initial value	≦±20% of the initial value							
	D.F. (tan δ)	≦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

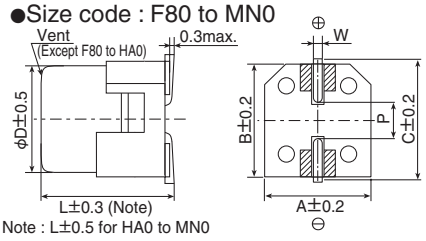
●Size code : F55 to MN0



Note : L±0.5 for HA0 to MN0

●Terminal Code : G (Vibration resistant structure)

●Size code : F80 to MN0



Note : L±0.5 for HA0 to MN0

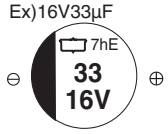
▨ : Supportive terminals

Size code	D	L	A	B	C	W	P
F55	6.3	5.2	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

◆MARKING

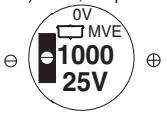
F55 to JA0

Ex)16V33μF



KE0 to MN0

Ex)25V1,000μF



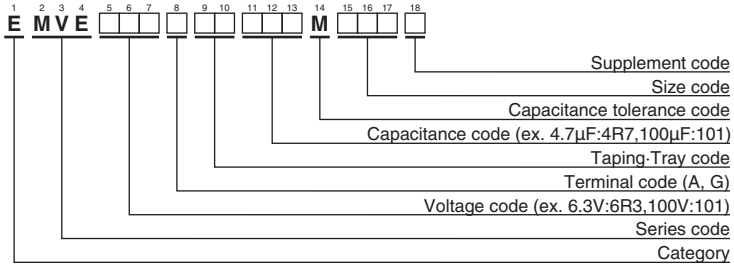
◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Size code	Capacitance(μF) \ Frequency(Hz)	120	1k	10k	100k
F55 to JA0	4.7 to 10	1.00	1.30	1.40	1.50
	22 to 1,500	1.00	1.05	1.08	1.08
KE0 to MN0	47, 68	1.00	1.50	1.75	1.80
	100 to 1,000	1.00	1.30	1.40	1.50
	2,200 to 6,800	1.00	1.05	1.08	1.08

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current. For details, refer to Section "5-3 Ripple Current Effect on Lifetime" in the catalog, Technical Note.

◆PART NUMBERING SYSTEM



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

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Alchip™-MVE Series

◆STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Size code	tan δ	Rated ripple current (mArms/ 105℃, 120Hz)	Part No.
6.3	100	F55	0.30	69	EMVE6R3ARA101MF55G
	220	F80	0.45	120	EMVE6R3□RA221MF80G
	330	HA0	0.40	290	EMVE6R3□RA331MHA0G
	470	HA0	0.45	320	EMVE6R3□RA471MHA0G
	680	HA0	0.45	340	EMVE6R3□RA681MHA0G
	1,000	JA0	0.40	410	EMVE6R3□RA102MJA0G
	1,500	JA0	0.45	550	EMVE6R3□RA152MJA0G
	2,200	KE0	0.40	680	EMVE6R3□RA222MKE0S
	2,200	LH0	0.40	840	EMVE6R3□RA222MLH0S
	3,300	KG5	0.42	850	EMVE6R3□RA332MKG5S
	3,300	MH0	0.42	1,000	EMVE6R3□RA332MMH0S
	4,700	LN0	0.44	1,200	EMVE6R3□RA472MLN0S
	4,700	MH0	0.44	1,200	EMVE6R3□RA472MMH0S
	6,800	LN0	0.48	1,200	EMVE6R3□RA682MLN0S
	6,800	MN0	0.48	1,350	EMVE6R3□RA682MMN0S
10	47	F55	0.24	48	EMVE100ARA470MF55G
	100	F55	0.30	69	EMVE100ARA101MF55G
	150	F80	0.35	100	EMVE100□RA151MF80G
	220	F80	0.35	120	EMVE100□RA221MF80G
	330	HA0	0.35	290	EMVE100□RA331MHA0G
	470	HA0	0.35	320	EMVE100□RA471MHA0G
	1,000	JA0	0.35	410	EMVE100□RA102MJA0G
	2,200	KG5	0.36	750	EMVE100□RA222MKG5S
	2,200	LH0	0.36	850	EMVE100□RA222MLH0S
	3,300	LH0	0.38	1,000	EMVE100□RA332MLH0S
	3,300	MH0	0.38	1,100	EMVE100□RA332MMH0S
	4,700	LN0	0.40	1,300	EMVE100□RA472MLN0S
	4,700	MN0	0.40	1,350	EMVE100□RA472MMN0S
16	33	F55	0.20	45	EMVE160ARA330MF55G
	47	F55	0.20	48	EMVE160ARA470MF55G
	100	F55	0.26	69	EMVE160ARA101MF55G
	150	F80	0.28	100	EMVE160□RA151MF80G
	220	F80	0.28	120	EMVE160□RA221MF80G
	330	HA0	0.28	290	EMVE160□RA331MHA0G
	470	HA0	0.28	320	EMVE160□RA471MHA0G
	680	JA0	0.28	470	EMVE160□RA681MJA0G
	1,000	KE0	0.30	550	EMVE160□RA102MKE0S
	1,000	LH0	0.30	650	EMVE160□RA102MLH0S
	2,200	LH0	0.32	950	EMVE160□RA222MLH0S
	2,200	MH0	0.32	1,000	EMVE160□RA222MMH0S
	3,300	LN0	0.34	1,200	EMVE160□RA332MLN0S
	3,300	MH0	0.34	1,200	EMVE160□RA332MMH0S
25	22	F55	0.16	44	EMVE250ARA220MF55G
	33	F55	0.16	50	EMVE250ARA330MF55G
	47	F55	0.16	60	EMVE250ARA470MF55G
	100	F80	0.18	100	EMVE250□RA101MF80G
	150	HA0	0.18	240	EMVE250□RA151MHA0G
	220	HA0	0.18	320	EMVE250□RA221MHA0G
	330	JA0	0.16	450	EMVE250□RA331MJA0G
	470	JA0	0.18	490	EMVE250□RA471MJA0G
	1,000	LH0	0.26	820	EMVE250□RA102MLH0S
	1,000	MH0	0.26	880	EMVE250□RA102MMH0S
	2,200	LN0	0.28	1,250	EMVE250□RA222MLN0S
	2,200	MN0	0.28	1,300	EMVE250□RA222MMN0S

WV (V_{dc})	Cap (μF)	Size code	tan δ	Rated ripple current (mArms/ 105℃, 120Hz)	Part No.
35	22	F55	0.14	44	EMVE350ARA220MF55G
	47	F80	0.16	80	EMVE350□RA470MF80G
	100	F80	0.16	100	EMVE350□RA101MF80G
	150	HA0	0.16	260	EMVE350□RA151MHA0G
	220	JA0	0.16	375	EMVE350□RA221MJA0G
	330	JA0	0.16	450	EMVE350□RA331MJA0G
	470	KE0	0.22	520	EMVE350□RA471MKE0S
	470	LH0	0.22	650	EMVE350□RA471MLH0S
	1,000	LH0	0.22	750	EMVE350□RA102MLH0S
	1,000	MH0	0.22	1,000	EMVE350□RA102MMH0S
	2,200	MN0	0.24	1,450	EMVE350□RA222MMN0S
50	10	F55	0.12	32	EMVE500ARA100MF55G
	33	F80	0.14	65	EMVE500□RA330MF80G
	47	F80	0.14	80	EMVE500□RA470MF80G
	100	HA0	0.14	230	EMVE500□RA101MHA0G
	220	JA0	0.14	375	EMVE500□RA221MJA0G
	330	KE0	0.18	500	EMVE500□RA331MKE0S
	330	LH0	0.18	600	EMVE500□RA331MLH0S
	470	LH0	0.18	700	EMVE500□RA471MLH0S
	470	MH0	0.18	750	EMVE500□RA471MMH0S
	1,000	MN0	0.18	1,200	EMVE500□RA102MMN0S
63	4.7	F55	0.12	22	EMVE630ARA4R7MF55G
	10	F55	0.12	32	EMVE630ARA100MF55G
	22	F80	0.12	58	EMVE630□RA220MF80G
	33	HA0	0.12	140	EMVE630□RA330MHA0G
	47	HA0	0.12	170	EMVE630□RA470MHA0G
	100	JA0	0.12	310	EMVE630□RA101MJA0G
	220	KE0	0.14	470	EMVE630□RA221MKE0S
	220	LH0	0.14	560	EMVE630□RA221MLH0S
	330	LH0	0.14	700	EMVE630□RA331MLH0S
	330	MH0	0.14	750	EMVE630□RA331MMH0S
	470	LN0	0.14	900	EMVE630□RA471MLN0S
	470	MH0	0.14	900	EMVE630□RA471MMH0S
*1 100	22	HA0	0.12	100	EMVE101□RA220MHA0G
	33	JA0	0.12	150	EMVE101□RA330MJA0G
	47	KE0	0.10	250	EMVE101□RA470MKE0S
	68	KE0	0.10	300	EMVE101□RA680MKE0S
	100	KE0	0.10	380	EMVE101□RA101MKE0S
	100	LH0	0.10	450	EMVE101□RA101MLH0S
	220	LN0	0.10	750	EMVE101□RA221MLN0S
	220	MH0	0.10	750	EMVE101□RA221MMH0S
	330	MN0	0.10	980	EMVE101□RA331MMN0S

□ : Enter the appropriate terminal code.
*1: Assembly boards with the designated products attached cannot be cleaned.

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■ Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.

■ Request the Product Specification on the product of NIPPON CHEMI-CON CORPORATION to refer to it as well as this brochure prior to the order of the products. Some specific notes on use of the ordered product may be described in the specifications.

■ The products listed in this catalog are designed and manufactured for general electronics equipment use and are not intended for use in applications that can adversely affect human life; where the malfunction of equipment may cause damage to life or property. In addition, our products are not intended to be used in specific applications that may cause a major social impact. Please consult with us in advance of usage of our products in the following listed applications. ① Aerospace equipment ② Power generation equipment such as thermal power, nuclear power etc. ③ Medical equipment ④ Transport equipment (automobiles, trains, ships, etc.) ⑤ Transportation control equipment ⑥ Disaster prevention / crime prevention equipment ⑦ Highly publicized information processing equipment ⑧ Submarine equipment ⑨ Other applications that are not considered general-purpose applications.

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In addition, we have an established system with enhanced traceability, therefore we will limit the applicable lot items for any potential compensation.

Part Numbering System
Part Numbering System (Appendix)
Standardization
Available Items by Manufacturing Locations
Environmental Measures
Technical Note
Precautions and Guidelines
Recommended Soldering Conditions
Taping, Lead-preforming and Packaging
Available Terminals for Snap-in and Screw Mount Type

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