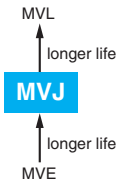
NIPPON CHEMI-CON

SURFACE MOUNT ALUMINUM ELECTROLYTIC CAPACITORS

2000-hours-life, 105℃

Alchip™-MVJ Series

- Endurance : 2,000 hours at 105℃
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant

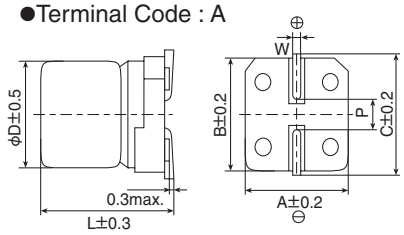


◆SPECIFICATIONS

Items	Characteristics							
Category Temperature Range	-40 to +105℃							
Rated Voltage Range	6.3 to 50V_{dc}							
Capacitance Tolerance	±20% (M)							(at 20℃, 120Hz)
Leakage Current	I=0.01CV or 3μA, whichever is greater. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V)							(at 20℃ after 2 minutes)
Dissipation Factor (tan δ)	Rated voltage (V_{dc})	6.3V	10V	16V	25V	35V	50V	
	tan δ (Max.)	0.30	0.24	0.20	0.16	0.14	0.12	(at 20℃, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V_{dc})	6.3V	10V	16V	25V	35V	50V	
	Z(-25℃)/Z(+20℃)	4	3	2	2	2	2	
	Z(-40℃)/Z(+20℃)	12	8	6	4	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 2,000 hours at 105℃.							
	Rated voltage	6.3V_{dc}			10 & 16V_{dc}			25 to 50V_{dc}
	Capacitance change	≦±30% of the initial value			≦±25% of the initial value			≦±20% of the initial value
	D.F. (tan δ)	≦300% of the initial specified value			≦300% of the initial specified value			≦200% of the initial specified value
	Leakage current	≦The initial specified value			≦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 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.							
	Rated voltage	6.3V_{dc}			10 & 16V_{dc}			25 to 50V_{dc}
	Capacitance change	≦±30% of the initial value			≦±25% of the initial value			≦±20% of the initial value
	D.F. (tan δ)	≦300% of the initial specified value			≦300% of the initial specified value			≦200% of the initial specified value
	Leakage current	≦The initial specified value			≦The initial specified value			≦The initial specified value

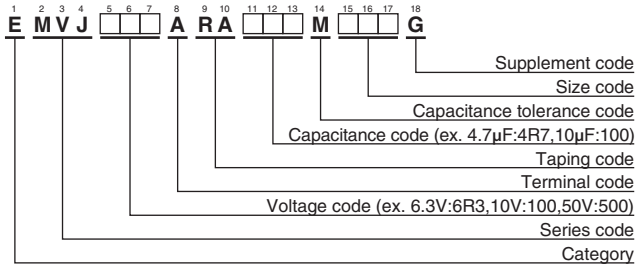
◆DIMENSIONS [mm]

●Terminal Code : A



Size code	D	L	A	B	C	W	P
D60	4	5.7	4.3	4.3	5.1	0.5 to 0.8	1.0
E60	5	5.7	5.3	5.3	5.9	0.5 to 0.8	1.4
F60	6.3	5.7	6.6	6.6	7.2	0.5 to 0.8	1.9

◆PART NUMBERING SYSTEM



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

◆MARKING

EX) 6.3V100μF

◆STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Size code	tan δ	Rated ripple current (mArms/ 105℃,120Hz)	Part No.
6.3	22	D60	0.30	21	EMVJ6R3ARA220MD60G
	47	E60	0.30	36	EMVJ6R3ARA470ME60G
	100	F60	0.30	56	EMVJ6R3ARA101MF60G
10	33	E60	0.24	34	EMVJ100ARA330ME60G
16	10	D60	0.20	16	EMVJ160ARA100MD60G
	22	E60	0.20	30	EMVJ160ARA220ME60G
	47	F60	0.20	48	EMVJ160ARA470MF60G
25	33	F60	0.16	45	EMVJ250ARA330MF60G

WV (V_{dc})	Cap (μF)	Size code	tan δ	Rated ripple current (mArms/ 105℃,120Hz)	Part No.
35	4.7	D60	0.14	15	EMVJ350ARA4R7MD60G
	10	E60	0.14	25	EMVJ350ARA100ME60G
	22	F60	0.14	40	EMVJ350ARA220MF60G
50	1.0	D60	0.12	5.6	EMVJ500ARA1R0MD60G
	2.2	D60	0.12	10	EMVJ500ARA2R2MD60G
	3.3	D60	0.12	14	EMVJ500ARA3R3MD60G
	4.7	E60	0.12	19	EMVJ500ARA4R7ME60G
	10	F60	0.12	29	EMVJ500ARA100MF60G

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Capacitance(μF) \ Frequency(Hz)	120	1k	10k	100k
1.0	1.00	1.50	1.75	1.80
2.2 to 10	1.00	1.30	1.40	1.50
22 to 100	1.00	1.05	1.08	1.08

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5℃ rise. When long life performance is required in actual use, the rms ripple current has to be reduced.