Alchip™-MV-BP Series

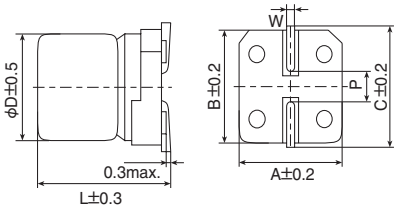
- Bi-polar chip type for the circuit, of which polarity is frequently reversed
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS Compliant

◆SPECIFICATIONS

Items	Characteristics							
Category Temperature Range	-40 to +85℃							
Rated Voltage Range	6.3 to 50V_{dc}							
Capacitance Tolerance	±20% (M)							(at 20℃, 120Hz)
Leakage Current	I=0.05CV or 10μA, 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.)	0.32	0.26	0.24	0.22	0.20	0.20	(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℃)	10	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 85℃, however the polarization shall be reversed every 250 hours.							
	Capacitance change	≦±20% of the initial value						
	D.F. (tan δ)	≦200% of the initial specified value						
	Leakage current	≦The initial specified value						
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 500 hours at 85℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.							
	Capacitance change	≦±15% of the initial value						
	D.F. (tan δ)	≦150% of the initial specified value						
	Leakage current	≦The initial specified value						

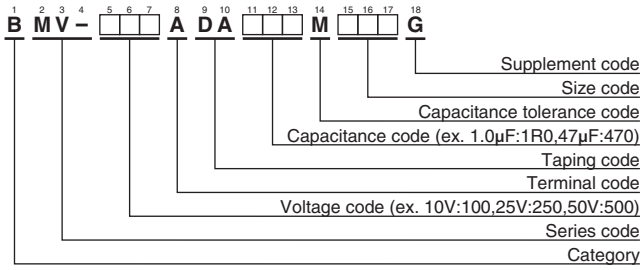
◆DIMENSIONS [mm]

●Terminal Code : A



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

◆PART NUMBERING SYSTEM



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

◆MARKING

EX) 35V4.7μF

◆STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Size code	tan δ	Rated ripple current (mArms/85℃, 120Hz)	Part No.
6.3	10	D55	0.32	13	BMV-6R3ADA100MD55G
	22	E55	0.32	23	BMV-6R3ADA220ME55G
	47	F55	0.32	36	BMV-6R3ADA470MF55G
10	33	F55	0.26	33	BMV-100ADA330MF55G
16	4.7	D55	0.24	11	BMV-160ADA4R7MD55G
	10	E55	0.24	18	BMV-160ADA100ME55G
	22	F55	0.24	28	BMV-160ADA220MF55G
25	3.3	D55	0.22	9.0	BMV-250ADA3R3MD55G
35	2.2	D55	0.20	8.0	BMV-350ADA2R2MD55G
	4.7	E55	0.20	13	BMV-350ADA4R7ME55G
	10	F55	0.20	21	BMV-350ADA100MF55G
50	1.0	D55	0.20	5.5	BMV-500ADA1R0MD55G
	2.2	E55	0.20	9.0	BMV-500ADA2R2ME55G
	3.3	E55	0.20	11	BMV-500ADA3R3ME55G
	4.7	F55	0.20	14	BMV-500ADA4R7MF55G

◆RATED RIPPLE CURRENT MULTIPLIERS

- Frequency Multipliers

Capacitance(μF) \ Frequency(Hz)	120	1k	10k	100k
1	1.00	1.50	1.75	1.80
2.2 to 10	1.00	1.30	1.40	1.50
22 to 47	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.