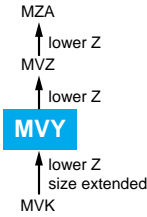


**Alchip™-MVY Series**

- Expand up to  $\phi 18$  case size
- Expand up to 100V<sub>dc</sub>
- Low impedance, 105°C 1,000 to 5,000-hours-life
- For digital equipment, especially DC-DC converters and VRM
- Solvent-proof type except 80 & 100V<sub>dc</sub> (see PRECAUTIONS AND GUIDELINES)
- RoHS Compliant

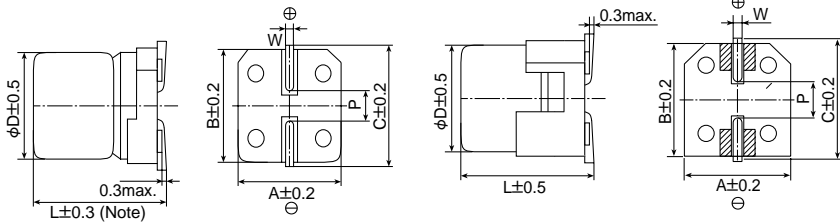


**◆ SPECIFICATIONS**

Items	Characteristics	
<b>Category</b> <b>Temperature Range</b>	-55 to +105°C (6.3 to 63V <sub>dc</sub> )	-40 to +105°C (80 & 100V <sub>dc</sub> )
<b>Rated Voltage Range</b>	6.3 to 100V <sub>dc</sub>	
<b>Capacitance Tolerance</b>	±20% (M) (at 20°C, 120Hz)	
<b>Leakage Current</b>	I=0.01CV or 3μA, whichever is greater. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 2 minutes)	
<b>Dissipation Factor (tanδ)</b>	Rated voltage (V <sub>dc</sub> )	6.3V 10V 16V 25V 35V 50V 63V 80V 100V
	tanδ (Max.)	D55 to F80 0.24 0.20 0.16 0.14 0.12 0.12 — — —
		HA0 & JA0 0.28 0.24 0.20 0.16 0.14 0.12 — — —
<b>Low Temperature Characteristics (Max. Impedance Ratio)</b>	Rated voltage (V <sub>dc</sub> )	6.3V 10V 16V 25V 35V 50V 63V 80V 100V
	Z(-40°C)/Z(+20°C)	D55 to JA0 3 2 2 2 2 2 — — —
		KE0 to MN0 10 8 6 4 3 3 3 3 3
<b>Endurance</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for specified time at 105°C.	
	Time	D55 to F80 : 1,000 hours HA0 & JA0 : 2,000 hours KE0 to MN0 : 5,000 hours
	Rated voltage	6.3V <sub>dc</sub> (D55 to JA0) 6.3 to 100V <sub>dc</sub>
	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 1,000 hours at 105°C without voltage applied.	
	Rated voltage	6.3V <sub>dc</sub> (D55 to JA0) 6.3 to 100V <sub>dc</sub>
	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

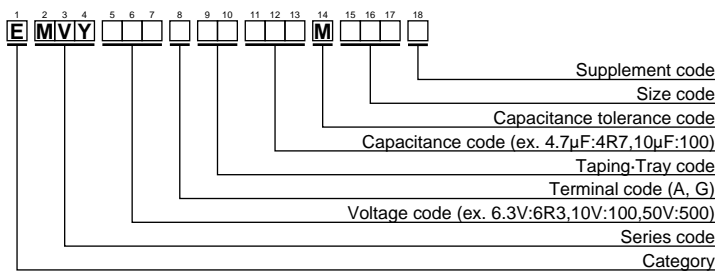
**◆ DIMENSIONS [mm]**

- Terminal Code : A
- Terminal Code : G
- Size code : D55 to KG5
- Size code : LH0 to MN0



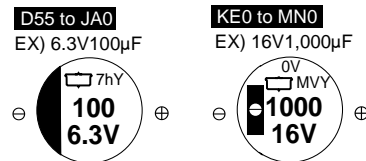
Size code	φD	L	A	B	C	W	P
D55	4	5.2	4.3	4.3	5.1	0.5 to 0.8	1.0
E55	5	5.2	5.3	5.3	5.9	0.5 to 0.8	1.4
F55	6.3	5.2	6.6	6.6	7.2	0.5 to 0.8	1.9
F80	6.3	7.7	6.6	6.6	7.2	0.5 to 0.8	1.9
HA0	8	10.0	8.3	8.3	9.0	0.7 to 1.1	3.1
JA0	10	10.0	10.3	10.3	11.0	0.7 to 1.1	4.5
KE0	12.5	13.5	13.0	13.0	13.7	1.0 to 1.3	4.2
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**



### ◆STANDARD RATINGS

□ is non solvent-proof (80/100V<sub>dc</sub>).

WV (V <sub>dc</sub> )	Cap (μF)	Size code	Impedance (Ω <sub>max</sub> /20°C, 100kHz)	Rated ripple current (mA <sub>rms</sub> /105°C, 100kHz)	Part No.	WV (V <sub>dc</sub> )	Cap (μF)	Size code	Impedance (Ω <sub>max</sub> /20°C, 100kHz)	Rated ripple current (mA <sub>rms</sub> /105°C, 100kHz)	Part No.	
6.3	22	D55	3.0	60	EMVY6R3ADA220MD55G	25	330	HA0	0.30	450	EMVY250ADA331MHA0G	
	33	E55	1.8	95	EMVY6R3ADA330ME55G		470	JA0	0.15	670	EMVY250ADA471MJA0G	
	47	E55	1.8	95	EMVY6R3ADA470ME55G		1,000	LH0	0.054	1,260	EMVY250GTR102MLH0S	
	100	F55	1.0	140	EMVY6R3ADA101MF55G		1,000	MH0	0.054	1,350	EMVY250GTR102MMH0S	
	220	F55	1.0	140	EMVY6R3ADA221MF55G		2,200	LN0	0.038	1,630	EMVY250GTR222MLN0S	
	330	F80	0.34	280	EMVY6R3ADA331MF80G		2,200	MN0	0.038	1,750	EMVY250GTR222MMN0S	
	470	HA0	0.30	450	EMVY6R3ADA471MHA0G		3,300	MN0	0.038	1,750	EMVY250GTR332MMN0S	
	680	HA0	0.30	450	EMVY6R3ADA681MHA0G		35	4.7	D55	3.0	60	EMVY350ADA4R7MD55G
	1,000	HA0	0.30	450	EMVY6R3ADA102MHA0G	10		E55	1.8	95	EMVY350ADA100ME55G	
	1,500	JA0	0.15	670	EMVY6R3ADA152MJA0G	22		F55	1.0	140	EMVY350ADA220MF55G	
	2,200	KE0	0.070	820	EMVY6R3A□□222MKE0S	33		F55	1.0	140	EMVY350ADA330MF55G	
	2,200	LH0	0.054	1,260	EMVY6R3GTR222MLH0S	47		F55	1.0	140	EMVY350ADA470MF55G	
	3,300	KG5	0.060	950	EMVY6R3A□□332MKG5S	68		F80	0.34	280	EMVY350ADA680MF80G	
	3,300	MH0	0.054	1,350	EMVY6R3GTR332MMH0S	100		HA0	0.30	450	EMVY350ADA101MHA0G	
	4,700	LN0	0.038	1,630	EMVY6R3GTR472MLN0S	220		HA0	0.30	450	EMVY350ADA221MHA0G	
	10	4,700	MH0	0.054	1,350	EMVY6R3GTR472MMH0S	330	JA0	0.15	670	EMVY350ADA331MJA0G	
6,800		LN0	0.038	1,630	EMVY6R3GTR682MLN0S	470	KE0	0.070	820	EMVY350A□□471MKE0S		
6,800		MN0	0.038	1,750	EMVY6R3GTR682MMN0S	470	LH0	0.054	1,260	EMVY350GTR471MLH0S		
8,200		MN0	0.038	1,750	EMVY6R3GTR822MMN0S	1,000	LH0	0.054	1,260	EMVY350GTR102MLH0S		
16		22	E55	1.8	95	EMVY100ADA220ME55G	1,000	MH0	0.054	1,350	EMVY350GTR102MMH0S	
		33	E55	1.8	95	EMVY100ADA330ME55G	2,200	MN0	0.038	1,750	EMVY350GTR222MMN0S	
		47	F55	1.0	140	EMVY100ADA470MF55G	50	1.0	D55	5.0	30	EMVY500ADA1R0MD55G
		100	F55	1.0	140	EMVY100ADA101MF55G		2.2	D55	5.0	30	EMVY500ADA2R2MD55G
		220	F80	0.34	280	EMVY100ADA221MF80G		3.3	D55	5.0	30	EMVY500ADA3R3MD55G
		330	HA0	0.30	450	EMVY100ADA331MHA0G		4.7	E55	3.0	50	EMVY500ADA4R7ME55G
		470	HA0	0.30	450	EMVY100ADA471MHA0G		10	F55	2.0	70	EMVY500ADA100MF55G
		680	JA0	0.15	670	EMVY100ADA681MJA0G		22	F55	2.0	70	EMVY500ADA220MF55G
		1,000	JA0	0.15	670	EMVY100ADA102MJA0G		33	F80	0.60	170	EMVY500ADA330MF80G
		2,200	KG5	0.060	950	EMVY100A□□222MKG5S		47	F80	0.60	170	EMVY500ADA470MF80G
		2,200	LH0	0.054	1,260	EMVY100GTR222MLH0S		68	HA0	0.60	300	EMVY500ADA680MHA0G
		3,300	LH0	0.054	1,260	EMVY100GTR332MLH0S		100	HA0	0.60	300	EMVY500ADA101MHA0G
3,300	MH0	0.054	1,350	EMVY100GTR332MMH0S	220	JA0		0.30	500	EMVY500ADA221MJA0G		
4,700	LN0	0.038	1,630	EMVY100GTR472MLN0S	330	KE0		0.11	650	EMVY500A□□331MKE0S		
4,700	MN0	0.038	1,750	EMVY100GTR472MMN0S	330	LH0	0.087	900	EMVY500GTR331MLH0S			
6,800	MN0	0.038	1,750	EMVY100GTR682MMN0S	470	LH0	0.087	900	EMVY500GTR471MLH0S			
25	10	D55	3.0	60	EMVY160ADA100MD55G	470	MH0	0.087	1,060	EMVY500GTR471MMH0S		
	22	E55	1.8	95	EMVY160ADA220ME55G	1,000	MN0	0.050	1,520	EMVY500GTR102MMN0S		
	33	F55	1.0	140	EMVY160ADA330MF55G	63	68	KE0	0.19	500	EMVY630A□□680MKE0S	
	47	F55	1.0	140	EMVY160ADA470MF55G		100	KE0	0.19	500	EMVY630A□□101MKE0S	
	100	F55	1.0	140	EMVY160ADA101MF55G		220	KE0	0.19	500	EMVY630A□□221MKE0S	
	220	F80	0.34	280	EMVY160ADA221MF80G		220	LH0	0.12	845	EMVY630GTR221MLH0S	
	330	HA0	0.30	450	EMVY160ADA331MHA0G		330	LH0	0.12	845	EMVY630GTR331MLH0S	
	470	HA0	0.30	450	EMVY160ADA471MHA0G		330	MH0	0.12	905	EMVY630GTR331MMH0S	
	680	JA0	0.15	670	EMVY160ADA681MJA0G		470	LN0	0.085	1,100	EMVY630GTR471MLN0S	
	1,000	KE0	0.070	820	EMVY160A□□102MKE0S		470	MH0	0.12	905	EMVY630GTR471MMH0S	
	80	1,000	LH0	0.054	1,260	EMVY160GTR102MLH0S	100	KE0	0.33	450	EMVY800A□□101MKE0S	
		2,200	LH0	0.054	1,260	EMVY160GTR222MLH0S	220	KG5	0.26	550	EMVY800A□□221MKG5S	
		2,200	MH0	0.054	1,350	EMVY160GTR222MMH0S	330	LN0	0.16	900	EMVY800GTR331MLN0S	
		3,300	LN0	0.038	1,630	EMVY160GTR332MLN0S	330	MH0	0.24	700	EMVY800GTR331MMH0S	
		3,300	MH0	0.054	1,350	EMVY160GTR332MMH0S	470	MN0	0.16	950	EMVY800GTR471MMN0S	
		4,700	MN0	0.038	1,750	EMVY160GTR472MMN0S	100	47	KE0	0.33	450	EMVY101A□□470MKE0S
100		10	E55	1.8	95	EMVY250ADA100ME55G		68	KE0	0.33	450	EMVY101A□□680MKE0S
		22	F55	1.0	140	EMVY250ADA220MF55G		100	KE0	0.33	450	EMVY101A□□101MKE0S
	33	F55	1.0	140	EMVY250ADA330MF55G	100		LH0	0.24	650	EMVY101GTR101MLH0S	
	47	F55	1.0	140	EMVY250ADA470MF55G	220		LN0	0.16	900	EMVY101GTR221MLN0S	
	100	F80	0.34	280	EMVY250ADA101MF80G	220		MH0	0.24	700	EMVY101GTR221MMH0S	
	220	HA0	0.30	450	EMVY250ADA221MHA0G	330	MN0	0.16	950	EMVY101GTR331MMN0S		

□ □ : Taping / Tray code