

**Alchip®-MKA Series**

- Endurance at 105°C 1000 to 2000 hours assured
- Rated voltage : 6.3V to 50V, Nominal capacitance : 0.1 to 1000μF
- Case sizes : φ4×5.2L to φ10×10.0L
- Solvent-proof type (see PRECAUTIONS AND GUIDELINES)
- Pb-free design

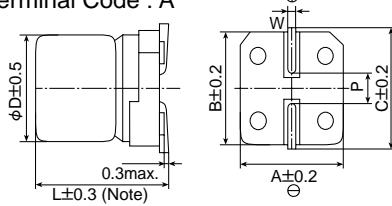
MKA

Higher Reflow Temp.  
MVK**◆SPECIFICATIONS**

Items	Characteristics					
Category Temperature Range	-40 to +105°C					
Capacitance Tolerance	±20%(M) (at 20°C, 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°C, 2 minute)					
Dissipation Factor (tanδ)	Rated voltage(V <sub>dc</sub> )	6.3V	10V	16V	25V	35V
	tanδ(Max.)	D55 to F55	0.30	0.24	0.20	0.16
		F80 to JA0	0.40	0.30	0.26	0.16
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage(V <sub>dc</sub> )	6.3	10	16	25	35
	Z(-25°C)/Z(+20°C)	4	3	2	2	2
	Z(-40°C)/Z(+20°C)	10	8	6	4	3
Endurance	(20°C, 120Hz)					
	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 F55			F80 to JA0	
	Time	1000 hours			2000 hours	
	Capacitance change	≤±30% of the initial measured value			≤±20% of the initial measured 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		

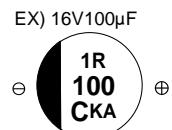
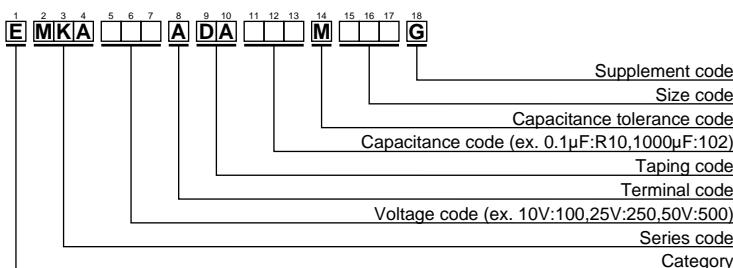
**◆DIMENSIONS [mm]**

- Terminal Code : A



Note : L±0.5 for H63 to JA0

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
F80	6.3	7.7	6.6	6.6	7.2	0.5 to 0.8	1.9
H63	8	6.3	8.3	8.3	9.0	0.5 to 0.8	2.3
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

**◆MARKING****◆PART NUMBERING SYSTEM**

Please refer to "A guide to global code (surface mount type)"

**◆RATED VOLTAGE CODE**

Rated voltage (V <sub>dc</sub> )	Code
6.3	j
10	A
16	C
25	E
35	V
50	H

## ◆STANDARD RATINGS

WV (Vdc)	Cap ( $\mu$ F)	Size code	$\tan\delta$	Rated ripple current (mArms/ 105°C, 120Hz)	Part No.
6.3	22	D55	0.30	21	EMKA6R3ADA220MD55G
	47	E55	0.30	36	EMKA6R3ADA470ME55G
	100	F55	0.30	56	EMKA6R3ADA101MF55G
	330	HA0	0.40	290	EMKA6R3ADA331MHA0G
	1000	JA0	0.40	410	EMKA6R3ADA102MJA0G
10	33	E55	0.24	34	EMKA100ADA330ME55G
	100	F80	0.30	90	EMKA100ADA101MF80G
	100	H63	0.30	90	EMKA100ADA101MH63G
	220	HA0	0.30	180	EMKA100ADA221MHA0G
16	10	D55	0.20	16	EMKA160ADA100MD55G
	22	E55	0.20	30	EMKA160ADA220ME55G
	47	F55	0.20	48	EMKA160ADA470MF55G
	470	JA0	0.26	460	EMKA160ADA471MJA0G
25	33	F55	0.16	45	EMKA250ADA330MF55G
	47	F80	0.16	80	EMKA250ADA470MF80G
	47	H63	0.16	80	EMKA250ADA470MH63G
	100	HA0	0.16	180	EMKA250ADA101MHA0G
	330	JA0	0.16	450	EMKA250ADA331MJA0G
35	4.7	D55	0.14	15	EMKA350ADA4R7MD55G

WV (Vdc)	Cap ( $\mu$ F)	Size code	$\tan\delta$	Rated ripple current (mArms/ 105°C, 120Hz)	Part No.
35	10	E55	0.14	25	EMKA350ADA100ME55G
	22	F55	0.14	40	EMKA350ADA220MF55G
	33	F80	0.14	80	EMKA350ADA330MF80G
	33	H63	0.14	80	EMKA350ADA330MH63G
	220	JA0	0.14	375	EMKA350ADA221MJA0G
50	0.10	D55	0.12	1.3	EMKA500ADAR10MD55G
	0.22	D55	0.12	2.6	EMKA500ADAR22MD55G
	0.33	D55	0.12	3.2	EMKA500ADAR33MD55G
	0.47	D55	0.12	3.8	EMKA500ADAR47MD55G
	1.0	D55	0.12	5.6	EMKA500ADA1R0MD55G
	2.2	D55	0.12	10	EMKA500ADA2R2MD55G
	3.3	D55	0.12	14	EMKA500ADA3R3MD55G
	4.7	E55	0.12	19	EMKA500ADA4R7ME55G
	10	F55	0.12	29	EMKA500ADA100MF55G
	22	F80	0.12	70	EMKA500ADA220MF80G
	22	H63	0.12	70	EMKA500ADA220MH63G
	33	HA0	0.12	140	EMKA500ADA330MHA0G
	47	HA0	0.12	170	EMKA500ADA470MHA0G
	100	JA0	0.12	310	EMKA500ADA101MJA0G