

Alchip™-MKA Series

- Endurance : 1,000 to 2,000 hours at 105°C
- Rated voltage range : 6.3 to 50V
- Nominal capacitance range : 0.1 to 1,000μF
- Case sizes : φ4×5.5L to φ10×10.5L
- Solvent resistant type
- RoHS Compliant

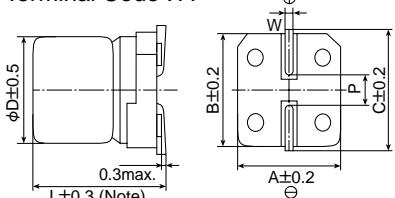


◆SPECIFICATIONS

Items	Characteristics																																									
Category Temperature Range	-40 to +105°C																																									
Rated Voltage Range	6.3 to 50Vdc																																									
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, after 2 minute)																																									
Dissipation Factor (tanδ)	<table border="1"> <tr> <td>Rated voltage(Vdc)</td> <td>6.3V</td> <td>10V</td> <td>16V</td> <td>25V</td> <td>35V</td> <td>50V</td> </tr> <tr> <td>tanδ(Max.)</td> <td>D55 to F55</td> <td>0.30</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> </tr> <tr> <td></td> <td>F80/H63 to JA0</td> <td>0.40</td> <td>0.30</td> <td>0.26</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> </tr> </table> (20°C, 120Hz)						Rated voltage(Vdc)	6.3V	10V	16V	25V	35V	50V	tanδ(Max.)	D55 to F55	0.30	0.24	0.20	0.16	0.14	0.12		F80/H63 to JA0	0.40	0.30	0.26	0.16	0.14	0.12													
Rated voltage(Vdc)	6.3V	10V	16V	25V	35V	50V																																				
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Low Temperature Characteristics (Max. Impedance Ratio)	<table border="1"> <tr> <td>Rated voltage(Vdc)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>Z(-25°C)/Z(+20°C)</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-40°C)/Z(+20°C)</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table> (120Hz)						Rated voltage(Vdc)	6.3	10	16	25	35	50	Z(-25°C)/Z(+20°C)	4	3	2	2	2	2	Z(-40°C)/Z(+20°C)	10	8	6	4	3	3															
Rated voltage(Vdc)	6.3	10	16	25	35	50																																				
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Z(-40°C)/Z(+20°C)	10	8	6	4	3	3																																				
Endurance	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. <table border="1"> <tr> <td>Sizes</td> <td colspan="3">D55 to F55</td> <td colspan="3">F80,H63,HA0,JA0</td> </tr> <tr> <td>Time</td> <td colspan="3">1,000 hours</td> <td colspan="3">2,000 hours</td> </tr> <tr> <td>Capacitance change</td> <td colspan="3">≤±30% of the initial value</td> <td colspan="3">≤±20% of the initial value</td> </tr> <tr> <td>D.F. (tanδ)</td> <td colspan="3">≤300% of the initial specified value</td> <td colspan="3">≤200% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td colspan="3">≤The initial specified value</td> <td colspan="3">≤The initial specified value</td> </tr> </table>							Sizes	D55 to F55			F80,H63,HA0,JA0			Time	1,000 hours			2,000 hours			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		
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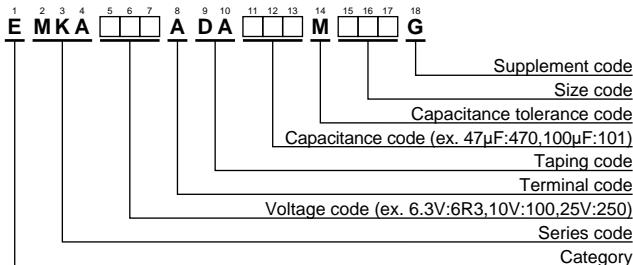
◆DIMENSIONS [mm]

- Terminal Code : A



Note : L±0.5 for H63 to JA0

◆PART NUMBERING SYSTEM



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

◆STANDARD RATINGS

WV (Vdc)	Cap (μF)	Size code	tanδ	Rated ripple current (mA rms/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
	1,000	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

Note : Parenthesized capacitances are sub-standard parts.

◆MARKING

EX) 16V100μF



- Rated voltage code

Rated voltage (Vdc)	6.3	10	16	25	35	50
Code	j	A	C	E	V	H

WV (Vdc)	Cap (μF)	Size code	tanδ	Rated ripple current (mA rms/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	EMKA500ADA47MD55G
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	

Specifications in this bulletin are subject to change without notice.