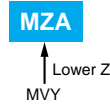


**Alchip™-MZA Series**

- Lowest impedance, 2,000 hours at 105°C
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS Compliant

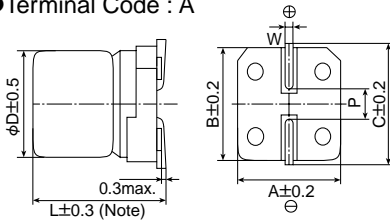


**◆ SPECIFICATIONS**

Items	Characteristics								
Category Temperature Range	-55 to +105°C								
Rated Voltage Range	6.3 to 80V <sub>dc</sub>								
Capacitance Tolerance	±20%(M) (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 minutes)								
Dissipation Factor (tanδ)	Rated voltage(V <sub>dc</sub> )	6.3V	10V	16V	25V	35V	50V	63V	80V
	tanδ (Max.)	0.26	0.19	0.16	0.14	0.12	0.10	0.08	0.08
Low Temperature Characteristics (Max. impedance Ratio)	Rated voltage(V <sub>dc</sub> )	6.3V	10V	16V	25V	35V	50V	63V	80V
	Z(-25°C)/Z(+20°C)	2	2	2	2	2	2	2	2
	Z(-40°C)/Z(+20°C)	3	3	3	3	3	3	3	3
	Z(-55°C)/Z(+20°C)	4	4	4	3	3	3	3	3
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2,000 hours at 105°C.								
	Capacitance change	≤±30% of the initial value							
	D.F. (tanδ)	≤200% of the initial specified value							
	Leakage current	≤The initial specified value							

**◆ DIMENSIONS [mm]**

- Terminal Code : A



Note : L±0.5 for HA0 and JA0

Size code	D	L	A	B	C	W	P
D61	4	5.8	4.3	4.3	5.1	0.5 to 0.8	1.0
E61	5	5.8	5.3	5.3	5.9	0.5 to 0.8	1.4
F61	6.3	5.8	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

**◆ MARKING**

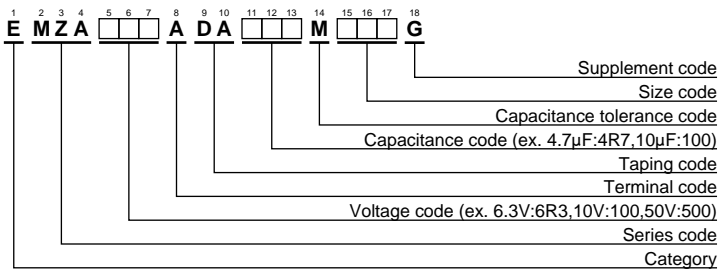
EX) 16V220μF



- Rated voltage symbol

Rated voltage (V <sub>dc</sub> )	Symbol
6.3	j
10	A
16	C
25	E
35	V
50	H
63	J
80	K

**◆ PART NUMBERING SYSTEM**



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



Alchip™-MZA Series

◆STANDARD RATINGS

WV(Vdc)	Cap(μF)	Size code	tanδ	Impedance ( $\Omega_{max}/20^{\circ}C, 100kHz$ )	Rated ripple current (mArms/105°C, 100kHz)	Part No.
6.3	22	D61	0.26	1.35	90	EMZA6R3ADA220MD61G
	47	D61	0.26	1.35	90	EMZA6R3ADA470MD61G
	47	E61	0.26	0.70	160	EMZA6R3ADA470ME61G
	100	E61	0.26	0.70	160	EMZA6R3ADA101ME61G
	100	F61	0.26	0.36	240	EMZA6R3ADA101MF61G
	220	F61	0.26	0.36	240	EMZA6R3ADA221MF61G
	330	F80	0.26	0.34	280	EMZA6R3ADA331MF80G
	470	HA0	0.26	0.16	600	EMZA6R3ADA471MHA0G
	1,000	HA0	0.26	0.16	600	EMZA6R3ADA102MHA0G
	1,500	JA0	0.26	0.08	850	EMZA6R3ADA152MJA0G
10	22	D61	0.19	1.35	90	EMZA100ADA220MD61G
	33	D61	0.19	1.35	90	EMZA100ADA330MD61G
	33	E61	0.19	0.70	160	EMZA100ADA330ME61G
	220	F80	0.19	0.34	280	EMZA100ADA221MF80G
	330	HA0	0.19	0.16	600	EMZA100ADA331MHA0G
	470	HA0	0.19	0.16	600	EMZA100ADA471MHA0G
	680	HA0	0.19	0.16	600	EMZA100ADA681MHA0G
	1,000	JA0	0.19	0.08	850	EMZA100ADA102MJA0G
16	10	D61	0.16	1.35	90	EMZA160ADA100MD61G
	22	D61	0.16	1.35	90	EMZA160ADA220MD61G
	22	E61	0.16	0.70	160	EMZA160ADA220ME61G
	47	E61	0.16	0.70	160	EMZA160ADA470ME61G
	47	F61	0.16	0.36	240	EMZA160ADA470MF61G
	100	F61	0.16	0.36	240	EMZA160ADA101MF61G
	220	F80	0.16	0.34	280	EMZA160ADA221MF80G
	330	HA0	0.16	0.16	600	EMZA160ADA331MHA0G
	470	HA0	0.16	0.16	600	EMZA160ADA471MHA0G
	680	JA0	0.16	0.08	850	EMZA160ADA681MJA0G
25	10	D61	0.14	1.35	90	EMZA250ADA100MD61G
	22	E61	0.14	0.70	160	EMZA250ADA220ME61G
	33	E61	0.14	0.70	160	EMZA250ADA330ME61G
	33	F61	0.14	0.36	240	EMZA250ADA330MF61G
	47	F61	0.14	0.36	240	EMZA250ADA470MF61G
	100	F80	0.14	0.34	280	EMZA250ADA101MF80G
	220	HA0	0.14	0.16	600	EMZA250ADA221MHA0G
	330	HA0	0.14	0.16	600	EMZA250ADA331MHA0G
	470	JA0	0.14	0.08	850	EMZA250ADA471MJA0G
	35	4.7	D61	0.12	1.35	90
10		D61	0.12	1.35	90	EMZA350ADA100MD61G
10		E61	0.12	0.70	160	EMZA350ADA100ME61G
22		E61	0.12	0.70	160	EMZA350ADA220ME61G
33		F61	0.12	0.36	240	EMZA350ADA330MF61G
47		F61	0.12	0.36	240	EMZA350ADA470MF61G
100		F80	0.12	0.34	280	EMZA350ADA101MF80G
100		HA0	0.12	0.16	600	EMZA350ADA101MHA0G
220		HA0	0.12	0.16	600	EMZA350ADA221MHA0G
330		JA0	0.12	0.08	850	EMZA350ADA331MJA0G
50	4.7	D61	0.10	2.90	60	EMZA500ADA4R7MD61G
	10	E61	0.10	1.52	85	EMZA500ADA100ME61G
	10	F61	0.10	0.88	165	EMZA500ADA100MF61G
	22	F61	0.10	0.88	165	EMZA500ADA220MF61G
	33	F80	0.10	0.68	195	EMZA500ADA330MF80G
	47	F80	0.10	0.68	195	EMZA500ADA470MF80G
	100	HA0	0.10	0.34	350	EMZA500ADA101MHA0G
	220	JA0	0.10	0.18	670	EMZA500ADA221MJA0G
63	4.7	E61	0.08	4.8	50	EMZA630ADA4R7ME61G
	10	F61	0.08	2.2	80	EMZA630ADA100MF61G
	22	F80	0.08	2.1	120	EMZA630ADA220MF80G
	33	HA0	0.08	0.70	250	EMZA630ADA330MHA0G
	47	HA0	0.08	0.70	250	EMZA630ADA470MHA0G
	68	HA0	0.08	0.70	250	EMZA630ADA680MHA0G
	100	JA0	0.08	0.45	400	EMZA630ADA101MJA0G
80	3.3	E61	0.08	5.0	25	EMZA800ADA3R3ME61G
	4.7	F61	0.08	3.0	40	EMZA800ADA4R7MF61G
	10	F80	0.08	2.4	60	EMZA800ADA100MF80G
	22	HA0	0.08	1.3	130	EMZA800ADA220MHA0G
	33	HA0	0.08	1.3	130	EMZA800ADA330MHA0G
	47	JA0	0.08	0.70	200	EMZA800ADA470MJA0G