Alchip™-MZJ Series

- Lower ESR, 2,000 hours at 105℃
- Rated voltage range : 6.3 to 35V
- Nominal capacitance range : 22 to 1,800μF
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- Vibration resistant structure
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.

MZJ
↑ Lower ESR
MZA

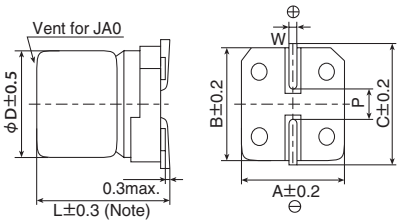


◆SPECIFICATIONS

Items	Characteristics						
Category Temperature Range	-55 to +105℃						
Rated Voltage Range	6.3 to 35Vdc						
Capacitance Tolerance	±20% (M)						(at 20℃, 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℃ after 2 minutes)
Dissipation Factor (tan δ)	Rated voltage (Vdc)	6.3V	10V	16V	25V	35V	
	tan δ (Max.)	0.26	0.19	0.16	0.14	0.12	(at 20℃, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (Vdc)	6.3V	10V	16V	25V	35V	
	Z(-25℃)/Z(+20℃)	2	2	2	2	2	
	Z(-40℃)/Z(+20℃)	3	3	3	3	3	
	Z(-55℃)/Z(+20℃)	4	4	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 105℃.						
	Capacitance change	≦±30% 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 1,000 hours at 105℃ 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	≦±30% of the initial value					
	D.F. (tan δ)	≦200% of the initial specified value					
	Leakage current	≦The initial specified value					
Surge Voltage Test	The capacitors shall be subjected to 1,000 cycles each consisting of charging with the specified surge voltage for 30±5 seconds through a protective resistor (as required for RC=0.1±0.05sec) and open-circuiting for 5.5 minutes at a room temperature of 15 to 35℃.						
	Rated voltage (Vdc)	6.3V	10V	16V	25V	35V	
	Surge voltage (Vdc)	7.2V	12V	18V	29V	40V	
	Appearance	No significant damage					
	Capacitance change	≦±20% of the initial value					
	D.F. (tan δ)	≦200% of the initial specified value					
	Leakage current	≦The initial specified value					
	(Caution) Surge Voltage Test intends to evaluate capacitors in durability of an exceptional excessive voltage under specific conditions.It does not imply long-term use at all.						

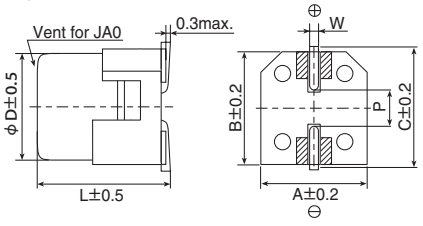
◆DIMENSIONS [mm]

● Terminal Code : A
● Size code : E61 to JA0



Note : L±0.5 for HA0 and JA0

● Terminal Code : G(Vibration resistant structure)
● Size code : HA0 and JA0



▨ : Dummy terminals

Size code	D	L	A	B	C	W	P
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) 35V220μF



● Rated voltage symbol

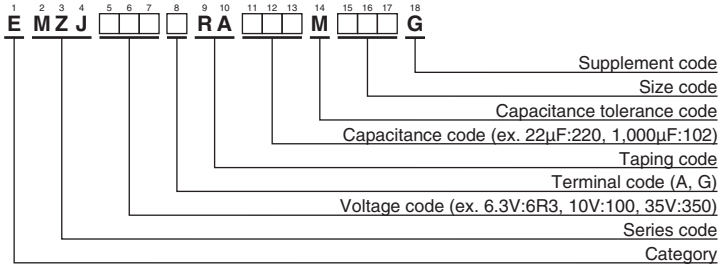
Rated voltage (Vdc)	6.3	10	16	25	35
Symbol	j	A	C	E	V

Applying voltage over the rated voltages causes the capacitors to have short lifetime.
Besides, applying voltage over the specified surge voltages may cause to have short circuit failure. A protection circuit should be used if applied voltage will exceed the rated voltages.

Product specifications in this catalog are subject to change without notice.Request our product specifications before purchase and/or use. Please use our products based on the information contained in this catalog and product specifications.

Alchip™-MZJ Series

◆PART NUMBERING SYSTEM



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

◆STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Size code	tan δ	ESR (Ω max./20℃, 100kHz)	Rated ripple current (mArms/105℃, 100kHz)	Part No.
6.3	100	E61	0.26	0.36	240	EMZJ6R3ARA101ME61G
	220	F61	0.26	0.26	300	EMZJ6R3ARA221MF61G
	330	F80	0.26	0.16	600	EMZJ6R3ARA331MF80G
	1,000	HA0	0.26	0.08	850	EMZJ6R3□RA102MHA0G
	1,500	JA0	0.26	0.06	1,190	EMZJ6R3□RA152MJA0G
	1,800	JA0	0.26	0.06	1,190	EMZJ6R3□RA182MJA0G
10	150	F61	0.19	0.26	300	EMZJ100ARA151MF61G
	680	HA0	0.19	0.08	850	EMZJ100□RA681MHA0G
	1,000	JA0	0.19	0.06	1,190	EMZJ100□RA102MJA0G
	1,200	JA0	0.19	0.06	1,190	EMZJ100□RA122MJA0G
16	47	E61	0.16	0.36	240	EMZJ160ARA470ME61G
	100	F61	0.16	0.26	300	EMZJ160ARA101MF61G
	150	F80	0.16	0.16	600	EMZJ160ARA151MF80G
	220	F80	0.16	0.16	600	EMZJ160ARA221MF80G
	470	HA0	0.16	0.08	850	EMZJ160□RA471MHA0G
	680	JA0	0.16	0.06	1,190	EMZJ160□RA681MJA0G
	820	JA0	0.16	0.06	1,190	EMZJ160□RA821MJA0G
25	22	E61	0.14	0.36	240	EMZJ250ARA220ME61G
	33	E61	0.14	0.36	240	EMZJ250ARA330ME61G
	33	F61	0.14	0.26	300	EMZJ250ARA330MF61G
	47	F61	0.14	0.26	300	EMZJ250ARA470MF61G
	68	F61	0.14	0.26	300	EMZJ250ARA680MF61G
	100	F80	0.14	0.16	600	EMZJ250ARA101MF80G
	330	HA0	0.14	0.08	850	EMZJ250□RA331MHA0G
	470	JA0	0.14	0.06	1,190	EMZJ250□RA471MJA0G
	560	JA0	0.14	0.06	1,190	EMZJ250□RA561MJA0G
35	22	E61	0.12	0.36	240	EMZJ350ARA220ME61G
	33	F61	0.12	0.26	300	EMZJ350ARA330MF61G
	47	F61	0.12	0.26	300	EMZJ350ARA470MF61G
	68	F61	0.12	0.26	300	EMZJ350ARA680MF61G
	100	F80	0.12	0.16	600	EMZJ350ARA101MF80G
	100	HA0	0.12	0.08	850	EMZJ350□RA101MHA0G
	150	HA0	0.12	0.08	850	EMZJ350□RA151MHA0G
	220	HA0	0.12	0.08	850	EMZJ350□RA221MHA0G
	330	JA0	0.12	0.06	1,190	EMZJ350□RA331MJA0G
	390	JA0	0.12	0.06	1,190	EMZJ350□RA391MJA0G

□ : Enter the appropriate terminal code.

◆RATED RIPPLE CURRENT MULTIPLIERS

❶Frequency Multipliers

Capacitance(μF) \ Frequency(Hz)	120	1k	10k	100k
22 to 150	0.40	0.75	0.90	1.00
220 to 560	0.50	0.85	0.94	1.00
680 to 1,800	0.60	0.87	0.95	1.00

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.

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