NIPPON CHEMI-CON

SURFACE MOUNT ALUMINUM ELECTROLYTIC CAPACITORS

Low ESR, 105℃

Alchip™-MZT Series

- Lower ESR, 2,000 hours at 105℃
- Rated voltage range : 16 to 35Vdc, Nominal capacitance range : 510 to 1,500μF
- Solvent resistant type
- Vibration resistant structure
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.

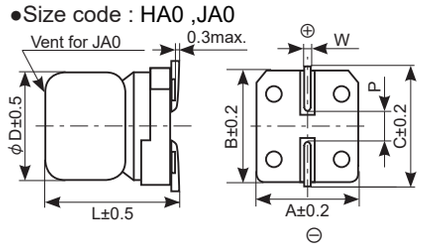
◆ SPECIFICATIONS

Items	Characteristics				
Category Temperature Range	-55 to +105℃				
Rated Voltage Range	16 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)	16V	25V	35V	
	tan δ (Max.)	0.16	0.14	0.12	
	When nominal capacitance exceeds 1,000μF, add 0.02 to the value above for each 1,000μF increase.				(at 20℃ , 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (Vdc)	16V	25V	35V	
	Z(-25℃)/Z(+20℃)	2	2	2	
	Z(-40℃)/Z(+20℃)	3	3	3	
	Z(-55℃)/Z(+20℃)	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)	16V	25V	35V	
	Surge voltage (Vdc)	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］

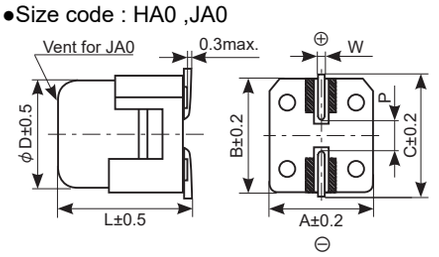
●Terminal Code : A

●Size code : HA0 ,JA0



●Terminal Code : G

●Size code : HA0 ,JA0



: Dummy terminals

Size code	D	L	A	B	C	W	P
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) 25V1,200μF

●Rated voltage symbol

Rated voltage(Vdc)	16	25	35
Symbol	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.

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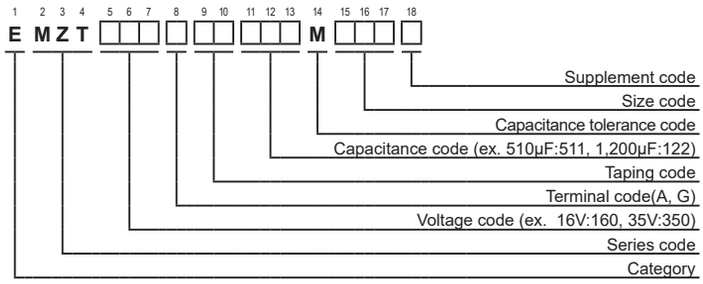
◆ PART NUMBERING SYSTEM



◆ STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Size code	tan δ	ESR (Ωmax./ 20℃,100kHz)	Rated ripple current (mArms/ 105℃,100kHz)	Part No.
16	820	HA0	0.16	0.08	850	EMZT160 □ RA821MHA0G
	1,500	JA0	0.16	0.06	1,190	EMZT160 □ RA152MJA0G
25	680	HA0	0.14	0.08	850	EMZT250 □ RA681MHA0G
	1,200	JA0	0.14	0.06	1,190	EMZT250 □ RA122MJA0G
35	510	HA0	0.12	0.08	850	EMZT350 □ RA511MHA0G
	820	JA0	0.12	0.06	1,190	EMZT350 □ RA821MJA0G

□ :Enter the appropriate terminal code

◆ RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Capacitance (μF) \ Frequency (Hz)	120	1k	10k	100k
510	0.50	0.85	0.94	1.00
680 ～ 1,500	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.