

# Alchip™-MZK Series

- Endurance : 5,000 hours at 105°C
- Low impedance
- Rated voltage range : 6.3 to 35V
- Nominal capacitance range : 10 to 150μF
- Suitable for low profile products
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant

MVY → Longer life → **MZK**

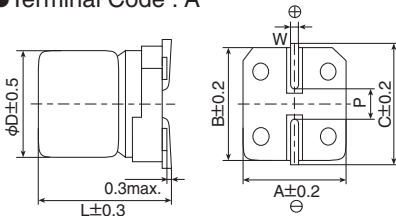


## ◆ SPECIFICATIONS

Items	Characteristics					
<b>Category</b>	-25 to +105°C					
<b>Temperature Range</b>	-25 to +105°C					
<b>Rated Voltage Range</b>	6.3 to 35V <sub>dc</sub>					
<b>Capacitance Tolerance</b>	±20%(M) (at 20°C, 120Hz)					
<b>Leakage Current</b>	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)					
<b>Dissipation Factor (tan δ)</b>	Rated voltage (V <sub>dc</sub> )	6.3V	10V	16V	25V	35V
	tan δ (Max.)	0.32	0.28	0.26	0.16	0.14
<b>Low Temperature Characteristics (Max. Impedance Ratio)</b>	Rated voltage(V <sub>dc</sub> )	6.3V	10V	16V	25V	35V
	Z(-10°C)/Z(+20°C)	4	3	2	2	2
<b>Endurance</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 5,000 hours at 105°C.					
	Capacitance change	≤ ±30% of the initial value				
	D.F. (tan δ)	≤300% of the initial specified value				
	Leakage current	≤The initial specified value				
<b>Shelf Life</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C 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)	≤300% of the initial specified value				
	Leakage current	≤The initial specified value				

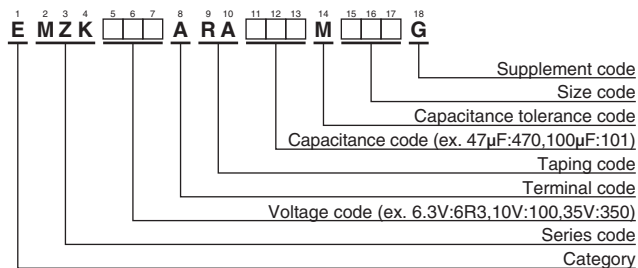
## ◆ DIMENSIONS [mm]

● Terminal Code : A



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

## ◆ PART NUMBERING SYSTEM



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

## ◆ MARKING

EX) 35V47μF



● Rated voltage symbol

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



Alchip™ - **MZK** Series

◆ **STANDARD RATINGS**

WV (V <sub>dc</sub> )	Cap (μF)	Size code	Impedance (Ω max./20°C, 100kHz)	Rated ripple current (mA <sub>rms</sub> /105°C, 100kHz)	Part No.
6.3	100	E61	2.2	95	EMZK6R3ARA101ME61G
10	150	F61	1.1	140	EMZK100ARA151MF61G
16	33	E61	2.2	95	EMZK160ARA330ME61G
	47	E61	2.2	95	EMZK160ARA470ME61G
	100	F61	1.1	140	EMZK160ARA101MF61G
25	68	F61	1.1	140	EMZK250ARA680MF61G
35	10	E61	2.2	95	EMZK350ARA100ME61G
	10	F61	1.1	140	EMZK350ARA100MF61G
	22	E61	2.2	95	EMZK350ARA220ME61G
	22	F61	1.1	140	EMZK350ARA220MF61G
	33	F61	1.1	140	EMZK350ARA330MF61G
	47	F61	1.1	140	EMZK350ARA470MF61G

◆ **RATED RIPPLE CURRENT MULTIPLIERS**

● Frequency Multipliers

Frequency(Hz)	120	1k	10k	100k
6.3 to 35V <sub>dc</sub>	0.40	0.75	0.90	1.00

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current. For details, refer to Section "5-3 Ripple Current Effect on Lifetime" in the catalog, Technical Note.



- Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.
- Request the Product Specification on the product of NIPPON CHEMI-CON CORPORATION to refer to it as well as this brochure prior to the order of the products. Some specific notes on use of the ordered product may be described in the specifications.
- The products listed in this catalog are designed and manufactured for general electronics equipment use and are not intended for use in applications that can adversely affect human life; where the malfunction of equipment may cause damage to life or property. In addition, our products are not intended to be used in specific applications that may cause a major social impact. Please consult with us in advance of usage of our products in the following listed applications. ① Aerospace equipment ② Power generation equipment such as thermal power, nuclear power etc. ③ Medical equipment ④ Transport equipment (automobiles, trains, ships, etc.) ⑤ Transportation control equipment ⑥ Disaster prevention / crime prevention equipment ⑦ Highly publicized information processing equipment ⑧ Submarine equipment ⑨ Other applications that are not considered general-purpose applications.
- The circuits described as examples in this catalog and the "delivery specifications" are featured in order to show the operations and usage of our products, however, this fact does not guarantee that the circuits are available to function in your equipment systems. We are not in any case responsible for any failures or damage caused by the use of information contained herein. You should examine our products, of which the characteristics are described in the "delivery specifications" and other documents, and determine whether or not our products suit your requirements according to the specifications of your equipment systems. Therefore, you bear final responsibility regarding the use of our products.  
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In addition, we have an established system with enhanced traceability, therefore we will limit the applicable lot items for any potential compensation.

[Part Numbering System](#)

[Part Numbering System \(Appendix\)](#)

[Standardization](#)

[Available Items by Manufacturing Locations](#)

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[Taping, Lead-preforming and Packaging](#)

[Available Terminals for Snap-in and Screw Mount Type](#)

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- ⊖ [United Chemi-Con Information](#)

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