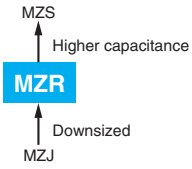
Alchip™-MZR Series

- Downsizing and Lower ESR, 2,000hours at 105℃
- Rated voltage range : 6.3 to 50V, Nominal capacitance range : 22 to 2,200μF
- Solvent resistant type(see PRECAUTIONS AND GUIDELINES)
- Vibration resistance structure
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.





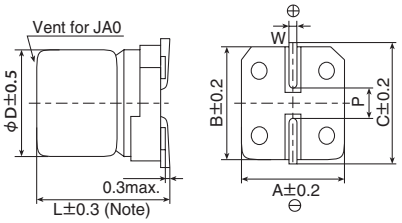
◆SPECIFICATIONS

Items	Characteristics							
Category Temperature Range	-55 to +105℃							
Rated Voltage Range	6.3 to 50Vdc							
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	50V	
	tan δ (Max.)	0.26	0.19	0.16	0.14	0.12	0.10	(at 20℃, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (Vdc)	6.3V	10V	16V	25V	35V	50V	
	Z(-25℃)/Z(+20℃)	2	2	2	2	2	2	
	Z(-40℃)/Z(+20℃)	3	3	3	3	3	3	
	Z(-55℃)/Z(+20℃)	4	4	4	3	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)	6.3	10	16	25	35	50	
	Surge voltage (Vdc)	7.2	12	18	29	40	58	
	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

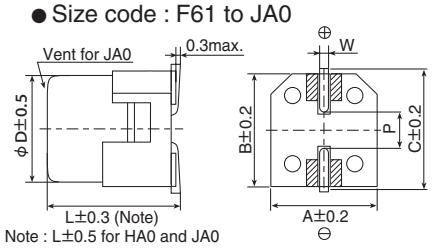
● Size code : E61 to JA0



Note : L±0.5 for HA0 and JA0

● Terminal Code : G(Vibration resistant structure)

● Size code : F61 to JA0



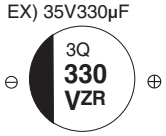
Note : L±0.5 for HA0 and JA0

: Supportive 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) 35V330μF



● Rated voltage symbol

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

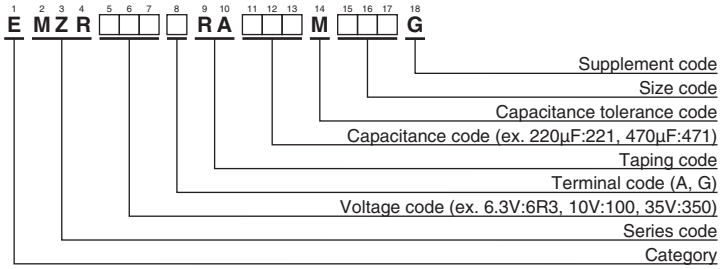
Applying voltage over the rated voltages causes the capacitors to have short lifetime.
Besides, applying voltage over the specified surge voltages may cause to have short circuit failure. A protection circuit should be used if applied voltage will exceed the rated voltages.

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.

Downloaded from Arrow.com.

Alchip™-MZR 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	220	E61	0.26	0.36	240	EMZR6R3ARA221ME61G
	330	F61	0.26	0.26	300	EMZR6R3□RA331MF61G
	680	F80	0.26	0.16	600	EMZR6R3□RA681MF80G
	1,500	HA0	0.26	0.08	850	EMZR6R3□RA152MHA0G
	2,200	JA0	0.26	0.06	1,190	EMZR6R3□RA222MJA0G
10	150	E61	0.19	0.36	240	EMZR100ARA151ME61G
	220	F61	0.19	0.26	300	EMZR100□RA221MF61G
	470	F80	0.19	0.16	600	EMZR100□RA471MF80G
	1,000	HA0	0.19	0.08	850	EMZR100□RA102MHA0G
	1,500	JA0	0.19	0.06	1,190	EMZR100□RA152MJA0G
16	100	E61	0.16	0.36	240	EMZR160ARA101ME61G
	220	F61	0.16	0.26	300	EMZR160□RA221MF61G
	330	F80	0.16	0.16	600	EMZR160□RA331MF80G
	680	HA0	0.16	0.08	850	EMZR160□RA681MHA0G
	1,000	JA0	0.16	0.06	1,190	EMZR160□RA102MJA0G
25	68	E61	0.14	0.36	240	EMZR250ARA680ME61G
	100	F61	0.14	0.26	300	EMZR250□RA101MF61G
	220	F80	0.14	0.16	600	EMZR250□RA221MF80G
	470	HA0	0.14	0.08	850	EMZR250□RA471MHA0G
	820	JA0	0.14	0.06	1,190	EMZR250□RA821MJA0G
35	47	E61	0.12	0.36	240	EMZR350ARA470ME61G
	100	F61	0.12	0.26	300	EMZR350□RA101MF61G
	150	F80	0.12	0.16	600	EMZR350□RA151MF80G
	330	HA0	0.12	0.08	850	EMZR350□RA331MHA0G
	560	JA0	0.12	0.06	1,190	EMZR350□RA561MJA0G
50	22	E61	0.10	0.88	165	EMZR500ARA220ME61G
	47	F61	0.10	0.68	195	EMZR500□RA470MF61G
	100	F80	0.10	0.34	350	EMZR500□RA101MF80G
	220	HA0	0.10	0.18	670	EMZR500□RA221MHA0G
	330	JA0	0.10	0.12	900	EMZR500□RA331MJA0G

□ : Enter the appropriate terminal code.

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency 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 2,200	0.60	0.87	0.95	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.

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.

Downloaded from Arrow.com.

■ 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.
Please make sure that you take appropriate safety measures such as use of redundant design and malfunction prevention measures in order to prevent fatal accidents and/or fires in the event any of our products malfunction.

■ We strongly recommend our customers to purchase Nippon Chemi-Con products only through our official sales channels. We assume no responsibility for any defects or damages caused by using products purchased from outside our official sales channel or of counterfeit goods. In addition, we will ask the customer to pay the investigation cost for products purchased outside our official sales channel.

■ We reserve the right to discontinue production and delivery of products. We do not guarantee that all the products included in this catalog will be available in the future.
The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products

■ We continually strive to improve the quality and reliability of our products, but in any case that our product does not meet our published specifications, please stop using it promptly and contact us immediately. As for compensation for non-conforming goods delivered by Chemi-Con, we will limit it only to goods found in non-compliance of our published specifications. This may be accomplished by a no cost replacement of non-conforming individual products, a credit of the piece price paid per each individual non-conforming product, or in other ways deemed necessary.
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
Environmental Measures
Technical Note
Precautions and Guidelines
Recommended Soldering Conditions
Taping, Lead-preforming and Packaging
Available Terminals for Snap-in and Screw Mount Type

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.

CAT. No. E1001A 2026

Downloaded from Arrow.com.