

# **LZA**Series

- Adoption of innovative electrolyte and new technologies
- Very low impedance at high frequency
- Endurance with ripple current: 4,000 to 7,000 hours at 105°C
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.

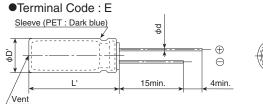


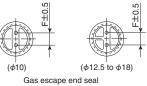


#### **SPECIFICATIONS**

Items	Characteristics								
Category Temperature Range	-55 to +105℃								
Rated Voltage Range	6.3 to 35V <sub>dc</sub>								
Capacitance Tolerance	±20% (M) (at 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	Rated voltage (Vdc)	6.3V 10V 1	6V 25V	35V					
(tan δ)	$tan \delta$ (Max.)	0.22 0.19 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°C, 120Hz)								
Low Temperature	Rated voltage (Vdc)	6.3V 10V 1	6V 25V	35V					
Characteristics	Z(-55°C)/Z(+20°C)	4 3	3 3	3					
(Max. Impedance Ratio)	(at 120Hz)								
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the								
	d period of time at 105℃.								
	Time φ10:4,000hours φ12.5:5,000hours φ16 to φ18:7,000hours								
	Rated voltage	6.3 to 10V <sub>dc</sub> (φ10)			6.3 to 10V <sub>dc</sub> ( φ 12.5 to φ 18)	16 to 35V <sub>dc</sub>			
	Capacitance change	$\leq \pm 30\%$ of the initial value			≤±20% of the initial value	≤±20% of the initial value			
	D.F.(tan $\delta$ )	≦300% of the initial specified value			≤200% of the initial specified value	≦200% of the initial specified value			
	Leakage current	≦The initial spe	cified value	)	≦The initial specified value	≦The initial specified value			
Shelf Life	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.								
	Rated voltage	6.3 to 10V <sub>dc</sub> ( φ 10)			6.3 to 10V <sub>dc</sub> (φ12.5 to φ18)	16 to 35V <sub>dc</sub>			
	Capacitance change	≦±30% of the initial value			≤±20% of the initial value	$\leq \pm 20\%$ of the initial value			
	D.F.(tan δ)	≦300% of the initial specified value			≤200% of the initial specified value	≦200% of the initial specified value			
	Leakage current	≦The initial specified value			≦The initial specified value	≦The initial specified value			

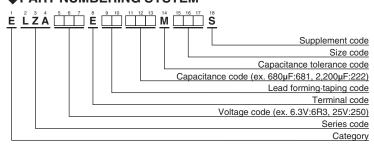
#### **◆DIMENSIONS** [mm]





φD	10	12.5	16	18				
φd	0.6	0.6	0.8	0.8				
F	5.0	5.0	7.5	7.5				
φD'	φD+0.5max.							
L'	L+1.5max.							

#### **◆PART NUMBERING SYSTEM**



Please refer to "Product code guide (radial lead type)"





#### **STANDARD RATINGS**

W\((V <sub>d</sub>	0.010	Case size φD×L(mm)	Impedance (Ω max./ 20°C, 100kHz)	Rated ripple current (mArms/ 105°C, 100kHz)	Part No.	WV (V <sub>dc</sub> )	Cap (µF)	Case size φD×L(mm)	Impedance (Ω max./ 20°C, 100kHz)	Rated ripple current (mArms/ 105°C, 100kHz)	Part No.
Г	1,500	10 × 12.5	0.063	960	ELZA6R3E□□152MJC5S		3,300	12.5 × 25	0.022	2,350	ELZA160E□□332MK25S
	1,800	10×16	0.049	1,240	ELZA6R3E□□182MJ16S		3,900	16×20	0.026	2,330	ELZA160E□□392ML20S
	2,700	10 × 20	0.035	1,550	ELZA6R3E□□272MJ20S	16	5,600	16 × 25	0.019	2,760	ELZA160E□□562ML25S
	3,300	10 × 25	0.033	1,740	ELZA6R3E□□332MJ25S	25	5,600	18×20	0.025	2,640	ELZA160E□□562MM20S
6.3	4,700	$12.5 \times 20$	0.029	1,890	ELZA6R3E□□472MK20S		8,200	18 × 25	0.018	2,850	ELZA160E□□822MM25S
0.0	6,800	$12.5 \times 25$	0.022	2,350	ELZA6R3E□□682MK25S		470	10 × 12.5	0.063	960	ELZA250E□□471MJC5S
	6,800	16×20	0.026	2,330	ELZA6R3E□□682ML20S		680	10×16	0.049	1,240	ELZA250E□□681MJ16S
	8,200	18 × 20	0.025	2,640	ELZA6R3E□□822MM20S		1,000	10×20	0.035	1,550	ELZA250E□□102MJ20S
	10,000	16×25	0.019	2,760	ELZA6R3E□□103ML25S		1,200	10 × 25	0.033	1,740	ELZA250E□□122MJ25S
	12,000	18 × 25	0.018	2,850	ELZA6R3E□□123MM25S		1,500	$12.5 \times 20$	0.029	1,890	ELZA250E□□152MK20S
	1,000	10 × 12.5	0.063	960	ELZA100E□□102MJC5S		2,200	12.5 × 25	0.022	2,350	ELZA250E□□222MK25S
	1,500	10×16	0.049	1,240	ELZA100E□□152MJ16S		2,700	16 × 20	0.026	2,330	ELZA250E□□272ML20S
	2,200	10×20	0.035	1,550	ELZA100E□□222MJ20S		3,300	18×20	0.025	2,640	ELZA250E□□332MM20S
	2,700	10 × 25	0.033	1,740	ELZA100E□□272MJ25S		3,900	16 × 25	0.019	2,760	ELZA250E□□392ML25S
10	3,300	12.5 × 20	0.029	1,890	ELZA100E□□332MK20S		4,700	18 × 25	0.018	2,850	ELZA250E□□472MM25S
	4,700	$12.5 \times 25$	0.022	2,350	ELZA100E□□472MK25S		330	10 × 12.5	0.063	960	ELZA350E□□331MJC5S
	4,700	16×20	0.026	2,330	ELZA100E□□472ML20S		470	10×16	0.049	1,240	ELZA350E□□471MJ16S
	6,800	16 × 25	0.019	2,760	ELZA100E□□682ML25S		680	10 × 20	0.035	1,550	ELZA350E□□681MJ20S
	6,800	18×20	0.025	2,640	ELZA100E□□682MM20S		820	10 × 25	0.033	1,740	ELZA350E□□821MJ25S
	8,200	18 × 25	0.018	2,850	ELZA100E□□822MM25S		1,000	$12.5 \times 20$	0.029	1,890	ELZA350E□□102MK20S
Г	820	10 × 12.5	0.063	960	ELZA160E□□821MJC5S	35	1,500	12.5 × 25	0.022	2,350	ELZA350E□□152MK25S
	1,000	10×16	0.049	1,240	ELZA160E□□102MJ16S		1,800	16×20	0.026	2,330	ELZA350E□□182ML20S
16	1,500	10 × 20	0.035	1,550	ELZA160E□□152MJ20S		2,200	18 × 20	0.025	2,640	ELZA350E□□222MM20S
	1,800	10 × 25	0.033	1,740	ELZA160E□□182MJ25S		2,700	16×25	0.019	2,760	ELZA350E□□272ML25S
	2,200	12.5 × 20	0.029	1,890	ELZA160E□□222MK20S		3,300	18 × 25	0.018	2,850	ELZA350E□□332MM25S

 $<sup>\</sup>square$  : Enter the appropriate lead forming or taping code.

#### **◆RATED RIPPLE CURRENT MULTIPLIERS**

#### Frequency Multipliers

Capacitance(µF) Frequency(Hz)	120	1k	10k	100k
330 to 470	0.50	0.85	0.94	1.00
680 to 1,800	0.60	0.87	0.95	1.00
2,200 to 3,900	0.75	0.90	0.95	1.00
4,700 to 12,000	0.85	0.95	0.98	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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  - The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific 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
Environmental Measures
Technical Note
Precautions and Guidelines
Recommended Soldering Conditions
Taping, Lead-preforming and Packaging
Available Terminals for Snap-in and Screw Mount Type

## **Mouser Electronics**

**Authorized Distributor** 

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### Chemi-Con:

<u>ELZA250ELL222MK25S</u> <u>ELZA350ELL681MJ20S</u> <u>ELZA350ELL471MJ16S</u> <u>ELZA350ELL152MK25S</u> ELZA350ELL102MK20S