Data Sheet

Customer : _____

Product : Aluminum Electrolytic Capacitors – ELA Series

Size : 8x12mm ~ 18x40mm

Issued Date : 25-Oct.-2023

Edition : Ver. 1

Record of change

Date	Ver.	Description	Page
25-Oct.-2023	1		

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25-Oct.-2023	25-Oct.-2023	25-Oct.-2023	
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Subject : Storage of Aluminium Electrolytic Capacitors

We recommend the following conditions for storage :

1. It is recommended to keep capacitors between the ambient temperatures of 5℃to 35℃ and a relative humidity of 75% or below.

2. Confirm that the environment does not have any of the following conditions :
   (1) Damp conditions such as water, saltwater spray, or oil spray or fumes. High humidity or humidity condensation situations.
   (2) In an atmosphere filled with toxic gasses (such as hydrogen sulfide, sulfurous acid, nitrous acid, chlorine, ammonia, elc.)
   (3) Being exposed to direct sunlight, ozone, ultraviolet ray, or radiation.
   (4) Being exposed to acidic or alkaline solutions.

3. Keep capacitors in the original package.

4. Storage life & Re-aging :
   When Aluminium Electrolytic Capacitors are stored without applied voltage, their L.C. (Leakage Current) characteristic increases over time. For long-term stored products, the following treatments must be performed before use :
   (1) For Low Voltage Aluminium Electrolytic Capacitors (i.e., Working Voltage W.V. ≦ 120V) :
   After one year of storage, a test must be performed before use. If the L.C. value exceeds the specified value,it is recommended not to use them, as lifespan and quality cannot be 100% guaranteed.
   (2) For Medium/High Voltage Aluminium Electrolytic Capacitors (i.e., Working Voltage W.V. ≧160V) :
   (A) If stored for more than 6 months, a test must be performed before use to ensure lifespan and quality.
   (B) If stored for 6-24 months and the L.C. value is between 25% and 40% of the specified value, it is recommended to recharge (re-agent) before use. If the L.C. value exceeds 40% of the specified value, do not use.
   (3) Re-aging condition : It is recommended to apply D.C. working voltage to the capacitor for 2 hours through 1KΩ of protective series resistor.

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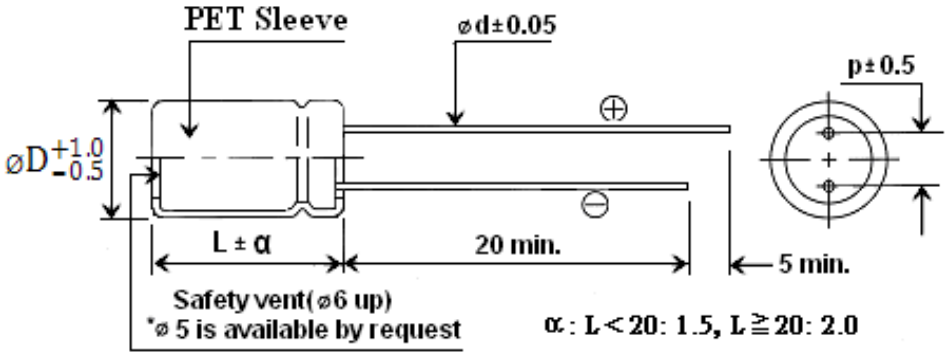
ELA SERIES

- High Temperature
- Load life 2000 hrs at 130℃
- Safety vent construction design.

Characteristics

Voltage Range	10 to 100 VDC							
Capacitance Range	1 to 4700uF							
Temperature Range	-40 to +130℃							
Leakage Current	I≦0.01CV or 3uA, whichever is greater 1 minutes after Rated Voltage applied							
Capacitance Tolerance	±20% at 120Hz , 20℃							
Dissipation Factor	Working Voltage (V)	10	16	25	35	50	63	100
	tanδ(%) max	20	16	14	12	10	9	8
Low Temperature Characteristic (120Hz)	Working Voltage (V)	10	16	25	35	50	63	100
	Z-25℃/Z +20℃	3	2	2	2	2	2	2
	Z-40℃/Z +20℃	6	4	3	3	3	3	3
Load life : (+130℃, 2000h)	Test conditions Duration time : as right Ambient temperature : +130℃ Applied voltage : Rated DC working voltage After test requirement at +20℃ Capacitance change : ≦ ±30% of the initial measured value value Dissipation factor : ≦ 300% of the initial specified value value Leakage current : ≦ The initial specified value							
Shelf life (at 105℃)	Test conditions Duration time : 1000Hrs Ambient temperature :+105℃ Applied voltage : None After test requirement at +20℃: Same limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.							

Drawing



Dϕ	5	6.3	8	10	13	16	18
p	2.0	2.5	3.5	5.0	5.0	7.5	7.5
dϕ	0.5	0.5	0.5	0.6	0.6	0.8	0.8

Ripple Current Coefficients

Frequency(Hz)	50/60	120	1K	10K	≧100K
Cap<10	0.35	0.42	0.6	0.8	1.0
10<Cap<47	0.45	0.55	0.75	0.85	1.0
47< Cap<470	0.6	0.70	0.85	0.95	1.0
470<Cap<2200	0.65	0.75	0.90	0.98	1.0
C>2200	0.75	0.80	0.95	1.0	1.0

Temperature Coefficieng

Temp.(℃)	60	70	85	105	130
Factor	2.4	2.1	1.78	165	1.00

Dimensions, Maximum Permissible Ripple Current & Impedance

WV / Cap(uF)	10		16		25		35		50		63		100	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
1									8x12	32				
2.2									8x12	45				
3.3									8x12	63				
4.7									8x12	90			8x12	90
10									8x12	180			8x12	180
22									8x12	234			8x12	198
33									8x12	270	8x12	225	10x13	234
47									8x12	270	10x13	360	10x16	297
100							8x12	324	10x13	468	10x16	405	13x21	603
220					8x12	324	10x13	558	10x20	801	13x21	738	16x25	990
330	8x12	324	8x12	324	10x13	558	10x16	720	13x21	900	13x25	900	16x30	1170
470	10x13	558	10x13	558	10x16	720	10x20	864	13x25	1080	16x25	1350	18x30	1440
1000	10x20	864	10x20	864	13x21	990	13x25	1287	16x30	1962	16x30	1665		
1500											18x40	2115		
2200	13x25	1287	13x25	1287	16x30	2070	16x35	2295	18x40	2520				
3300	16x25	1710	16x30	2070	16x35	2295	18x35	2520						
4700	16x30	2070	16x35	2295										

Ripple Current (mA, rms) at 130°C 100KHz