

## *Data Sheet*

Customer : \_\_\_\_\_

Product : Aluminum Electrolytic Capacitors – EGA Series \_\_\_\_\_

Size : 6.3x9mm ~ 18x45mm \_\_\_\_\_

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°C to 35°C 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, etc.)
  - (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.  $\leq$  120V) :

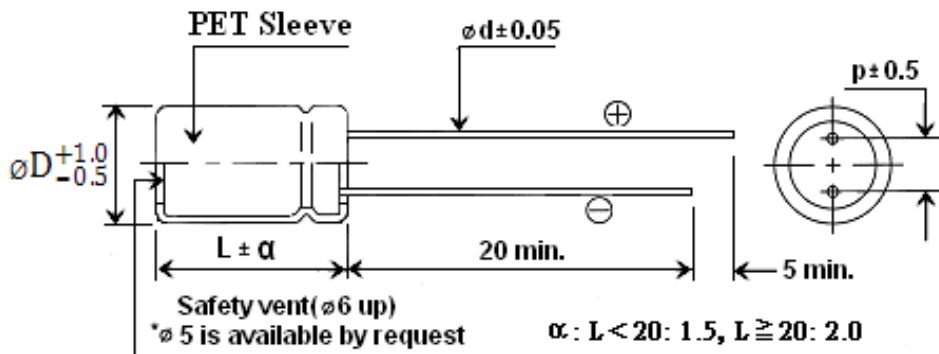
After one year of storage, a test must be performed before use. If the L.C. value exceeds the specified value, it is recommended not to use them, as lifespan and quality cannot be 100% guaranteed.
- (2) For Medium/High Voltage Aluminium Electrolytic Capacitors (i.e., Working Voltage W.V.  $\geq$  160V) :
  - (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 1K $\Omega$  of protective series resistor.

- High Temperature Long life
- Load life 3000 hrs at 130°C
- Applicable to LED drivers, electronic ballast
- Sleeve Color : Silver Print in Brown Sleeve

**Characteristics**

<b>Voltage Range</b>	160 to 450 VDC							
<b>Capacitance Range</b>	1 to 220uF							
<b>Temperature Range</b>	-40 to +130°C							
<b>Leakage Current</b>	I ≤ 0.01CV or 3uA, whichever is greater 1 minutes after Rated Voltage applied							
<b>Capacitance Tolerance</b>	±20% at 120Hz, 20°C							
<b>Dissipation Factor</b>	Working Voltage (V)	160	200	250	350	400	450	
	tanδ(%) max	15	15	15	20	20	20	
<b>Low Temperature Characteristic (120Hz)</b>	Working Voltage (V)	160	200	250	350	400	450	
	Z-25°C/Z +20°C	3	3	3	5	5	6	
	Z-40°C/Z +20°C	6	6	6	6	6	9	
<b>Load life : (+130°C, 3000h)</b>	Test conditions							
	Duration time : as right							
	Ambient temperature : +130°C							
	Applied voltage : Rated DC working voltage							
	After test requirement at +20°C							
<b>Shelf life (at 105°C)</b>	Capacitance change : ≤ ±20% of the initial measured value							
	value Dissipation factor : ≤ 200% of the initial specified value							
	value Leakage current : ≤ The initial specified value							
	Test conditions							
	Duration time : 1000Hrs							
Ambient temperature : +105°C								
Applied voltage : None								
After test requirement at +20°C: Same limits as Load life.								
Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.								

**Drawing**



<b>Dφ</b>	5	6.3	8	10	13	16	18	20	22
<b>p</b>	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10	10
<b>dφ</b>	0.5	0.5	0.5	0.6	0.6	0.8	0.8	0.8	0.8

**Ripple Current Coefficients**

<b>Frequency(Hz)</b>	120	1K	10K	≥100K
<b>Cap&lt;33</b>	0.40	0.7	0.9	1.0
<b>C&gt;33</b>	0.50	0.8	0.9	1.0

**Temperature Coefficieng**

<b>Temp.(°C)</b>	60	70	85	105	130
<b>Factor</b>	2.4	2.1	1.78	1.65	1.00

**Dimensions, Maximum Permissible Ripple Current & Impedance**

WV Cap(uF)	160		200		250		350		400		450	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
1	6.3x9	36	6.3x9	50	6.3x9	50	6.3x9	50	6.3x12	59	6.3x12	72
1.5	6.3x9	41	6.3x9	56	6.3x9	56	8x9	64	6.3x12	74	8x12	79
1.8	6.3x9	45	6.3x9	59	6.3x9	59	8x9	72	8x9	81	8x12	81
2.2	6.3x9	50	6.3x9	65	6.3x9	65	8x9	81	8x9	79	8x16	86
2.8	6.3x9	63	6.3x9	76	6.3x12	86	8x9	86	8x12	117	8x16	107
3.3	6.3x9	77	6.3x12	101	6.3x12	101	8x9	99	8x12	126	8x16	115
4.7	6.3x12	86	8x9	130	8x12	144	8x16	153	8x20	178	10x16	162
5.6	8x9	92	8x9	153	8x12	171	8x16	180	8x20	203	10x20	225
6.8	8x12	101	8x12	180	8x16	203	8x20	227	8x20	227	10x20	239
8.2	8x12	155	8x16	251	8x20	259	8x20	259	10x16	259	10x20	252
10	8x12	230	8x16	270	8x20	288	8x20	288	10x20	315	10x25	297
15	8x16	279	8x20	322	8x20	378	10x20	405	13x21	495	13x21	405
22	10x16	405	10x16	450	10x16	450	13x21	585	13x25	684	13x25	540
33	10x16	522	10x20	585	13x16	684	13x21	770	16x20	810	16x25	882
47	10x20	675	13x21	882	13x21	882	16x20	972	16x30	1062	16x35	972
56									18x25	1328	18x30	1286
68	13x21	1062	13x25	1170	13x25	1231	18x20	1231	18x30	1392	18x35	1350
82			16x20	1242	13x20	1350	18x25	1377				
100	13x25	1278	16x20	1278	16x30	1449	18x30	1530	18x40	1546	18x45	1499
150	16x25	1701	16x25	1701	16x35	1800						
220	18x25	2133										

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