

## *Data Sheet*

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

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

Size : 10x16mm ~ 22x41mm \_\_\_\_\_

Issued Date: 2-Nov.-2022 \_\_\_\_\_

Edition: Ver. 3 \_\_\_\_\_

### Record of change

Date	Ver.	Description	Page
20-May-2016	1		
10-Jan-2017	2	revise max ripple current	2
2-Nov-2022	3	Revise 330uF 160v Size	3
6-Oct-2023	4	Revise Size	3

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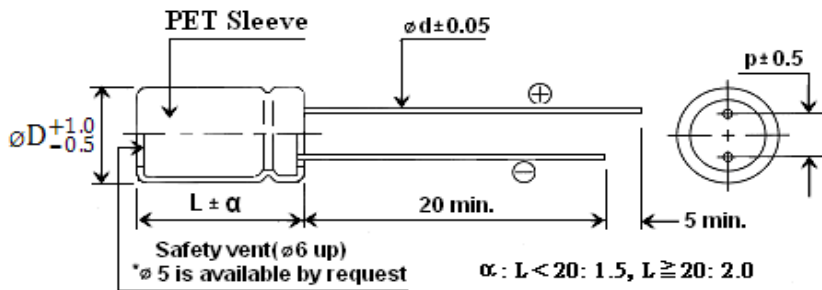
Prepared by	Checked by	Approved by	Accepted by (customer)
20-May-2016	20-May-2016	20-May-2016	
<i>Andy Hsu</i>	<i>Hwa Wu</i>	<i>Hwa Wu</i>	

- ESG series capacitors are suitable for electronic ballast and other long life equipment.
- Load life 105°C, 5000 hours assured.

**Characteristics**

<b>Voltage Range</b>	160 ~500V							
<b>Temperature Range</b>	-40 ~ + 105°C							
<b>Capacitance Range</b>	4.7 to 330 uF							
<b>Leakage Current</b>	$I \leq 0.04CV$ or 10uA, whichever is greater (After 2 minutes)							
<b>Capacitance Tolerance</b>	±20% at 120Hz, 20°C( 10% Tol. is available upon request)							
<b>Dissipation Factor</b> (at 20°C, 120Hz)	WV	160	200	250	350	400	450	500
	tanδ	0.12	0.12	0.12	0.15	0.15	0.17	0.20
<b>Stability at Low Temperature</b> (120Hz)	Rated Voltage (V)	160	200	250	350	400	450	500
	Z-25°C/Z +20°C	3	3	3	6	6	6	6
	Z-40°C/Z +20°C	6	6	6	6	6	-	-
<b>Load life after application of the rated voltage for 5000 hrs at 105°C</b>	Leakage current	Less than initial specified value						
	Capacitance change	Within ±20% of initial value						
	tanδ	200% or less of initial specified value						
<b>Shelf life (at 105°C)</b>	After storage for 1000 hours at 105°C with no voltage applied, the capacitor shall meet the specified limit in load life. Pre-treatment for measurement shall be conducted after application of DC working voltage for 30 minutes.							

**Diagram of dimensions**



**Drawing**

Dψ	10	13	16	18	22
p	5.0	5.0	7.5	7.5	10.0
dψ	0.6	0.6	0.8	0.8	0.8

**Ripple Current Coefficients**

Frequency (Hz)	120	1K	10K	100K
Multiplier	0.52	0.79	0.89	1.0

**Part Numbering System**

ESG      □ □ □      □      □ □      B      □ □  
Series      Capacitance      Tolerance      Rated Voltage      Package      Extended Code

**Case size & Maximum Ripple Current (mA rms 105°C 100KHz)**

Cap. WV uF	160V		200V		250V		350V	
	Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.
10	10x16	115	10x16 10x20	195 210	10x16 10x20	195 200	10x20	150
22	10x16 10x20	175 195	10x16 10x20	250 255	13x20	300 350	13x20	250
33	10x20 13x20	200 250	10x20 13x20	300 350	13x20 13x25	350 400	13x25	360
47	10x20 13x20	255 300	13x20	490	13x25	500	16x25	430
68	13x20 13x25	350 390	13x25	530	16x25	600	16x31.5	450
100	13x25 16x25	530 560	16x20 16x25	730 810	16x31.5 18x31.5	600 660	18x31.5	700
150	16x25 16x31.5	690	16x31.5	840	18x32	690		
220	16x31.5	730	18x31.5	970	22x41	750		
330	18x36	920						

Cap. WV uF	400V		450V		500V	
	Size	R.C.	Size	R.C.	Size	R.C.
4.7	10x16	115	10x16	115	10x16	60
	10x20	115	10x20	115	13x20	82
6.8	10x16	125	10x20	125	13x20	96
10	10x20 13x20	175 200	13x20 13x25	175 185	13x25	130
	13x25	320	16x25	290	16x25	170
33	16x25	350	16x31.5	390	16x31.5	210
47	16x31.5 16x25	450	16x35.5	480	16x35.5	360
68	18x31.5	580	18x41 18x36	630 430	18x35.5	460
	18x41 18x35.5	790	22x41	570		
150	25x41	1000				