

Data Sheet

Customer: _____

Product: Aluminum Electrolytic Capacitors – ESG Series _____

Size : 10x16mm ~ 22x41mm _____

Issued Date: 10-Jan.-2017 _____

Edition: Ver. 2 _____

Record of change

| Date | Ver. | Description | Page |
|-------------|------|---------------------------|------|
| 20-May-2016 | 1 | | |
| 10-Jan-2017 | 2 | revise max ripple current | 2 |
| | | | |
| | | | |

HITANO ENTERPRISE CORP.

7F-7, No. 3, Wu Chuan 1st Road, New Taipei Industrial Park,

New Taipei City, TAIWAN, R.O.C.

Tel: +886 2 2299 1331 (Rep.)

Fax: +886 2 2298 2466, 2298 2969

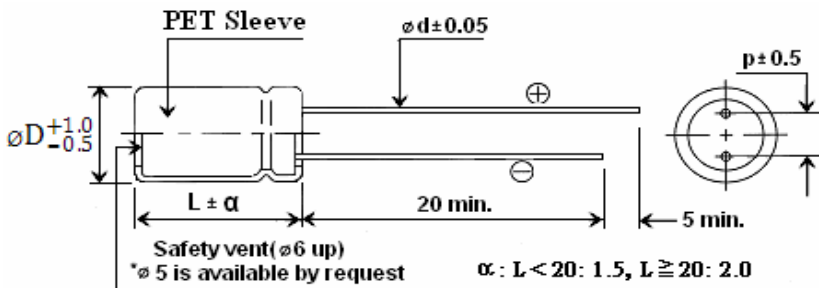
| Prepared by | Checked by | Approved by | Accepted by (customer) |
|-----------------|---------------|---------------|------------------------|
| 20-May-2016 | 20-May-2016 | 20-May-2016 | |
| <i>Andy Hsu</i> | <i>Hwa Wu</i> | <i>Hwa Wu</i> | |

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

Characteristics

| | | | | | | | | |
|---|--|---|------|------|------|------|------|------|
| Voltage Range | 160 ~500V | | | | | | | |
| Temperature Range | -40 ~ + 105°C | | | | | | | |
| Capacitance Range | 4.7 to 330 uF | | | | | | | |
| Leakage Current | $I \leq 0.04CV$ or 10uA, whichever is greater (After 2 minutes) | | | | | | | |
| Capacitance Tolerance | ±20% at 120Hz, 20°C (10% Tol. is available upon request) | | | | | | | |
| Dissipation Factor (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 |
| Stability at Low Temperature (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 | - | - |
| Load life after application of the rated voltage for 5000 hrs at 105°C | Leakage current | Less than initial specified value | | | | | | |
| | Capacitance change | Within ±20% of initial value | | | | | | |
| | tanδ | 200% or less of initial specified value | | | | | | |
| Shelf life (at 105°C) | 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

| | | | | | |
|------------|-----|-----|-----|-----|------|
| D φ | 10 | 13 | 16 | 18 | 22 |
| p | 5.0 | 5.0 | 7.5 | 7.5 | 10.0 |
| d φ | 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 | 160V | | 200V | | 250V | | 350V | |
|------------|------------------|------------|----------------|------------|--------------------|------------|---------|------|
| | uF | Size | R.C. | Size | R.C. | Size | R.C. | Size |
| 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 | 18x31.5 | 690 | | |
| 220 | 16x31.5 | 730 | 18x31.5 | 970 | 22x41 | 750 | | |
| 330 | 18x41 | 1250 | | | | | | |

| Cap. WV | 400V | | 450V | | 500V | |
|------------|----------------|------------|----------------|------------|---------|------|
| | uF | Size | R.C. | Size | R.C. | Size |
| 4.7 | 10x16 | 115 | 10x16 | 115 | 13x20 | 82 |
| 6.8 | 10x16 | 125 | 10x20 | 125 | 13x20 | 96 |
| 10 | 10x20 13x20 | 175 200 | 13x20 13x25 | 175 185 | 13x25 | 130 |
| 22 | 13x25 | 320 | 16x25 | 290 | 16x25 | 170 |
| 33 | 16x25 | 350 | 16x31.5 | 390 | 16x31.5 | 210 |
| 47 | 16x31.5 | 450 | 16x35.5 | 480 | 16x35.5 | 360 |
| 68 | 18x31.5 | 580 | 18x41 | 630 | 18x35.5 | 460 |
| 100 | 18x41 | 790 | | | | |