

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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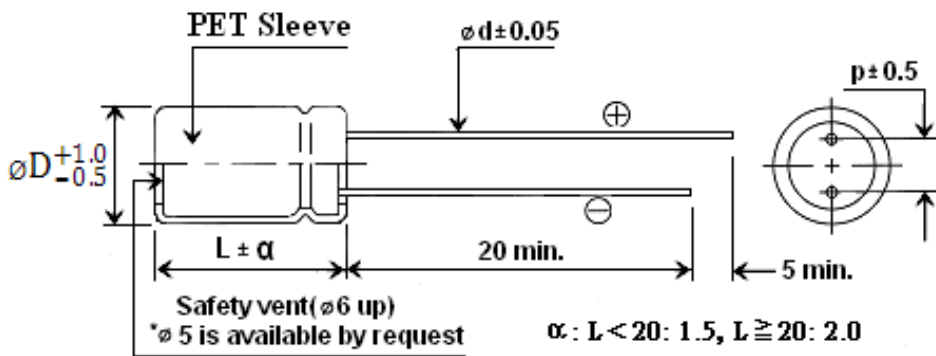
| Prepared by | Checked by | Approved by | Accepted by (customer) |
|-----------------|---------------|---------------|------------------------|
| 25-Oct.-2023 | 25-Oct.-2023 | 25-Oct.-2023 | |
| <i>Andy Hsu</i> | <i>Hwa Wu</i> | <i>Hwa Wu</i> | |

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

Characteristics

| | | | | | | | | |
|---|---|----|----|----|----|----|----|-----|
| Voltage Range | 10 to 100 VDC | | | | | | | |
| Capacitance Range | 1 to 4700uF | | | | | | | |
| Temperature Range | -40 to +130°C | | | | | | | |
| Leakage Current | I ≤ 0.01CV or 3uA, whichever is greater 1 minutes after Rated Voltage applied | | | | | | | |
| Capacitance Tolerance | ±20% at 120Hz , 20°C | | | | | | | |
| 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°C/Z +20°C | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| | Z-40°C/Z +20°C | 6 | 4 | 3 | 3 | 3 | 3 | 3 |
| Load life : (+130°C, 2000h) | Test conditions Ambient temperature : +130°C After test requirement at +20°C 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°C) 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



| 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.(°C) | 60 | 70 | 85 | 105 | 130 |
|---------------|-----|-----|------|------|------|
| Factor | 2.4 | 2.1 | 1.78 | 1.65 | 1.00 |

Dimensions, Maximum Permissible Ripple Current & Impedance

| | 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