

ALUMINUM ELECTROLYTIC CAPACITOR

Suntan®

105°C, HIGH FREQUENCY, LOW IMPEDANCE

TS13D CD286

FEATURES

- Load life of 2000 hours at 105°C
- Switch power supply



◆ Specifications

| ITEMS | | PERFORMANCE CHARACTERISTICS | | | | | | | |
|------------------------------------|--|--|------|------|------|------|------|------|------|
| Operating Temperature Range(°C) | -40~+105 | -25~+105 | | | | | | | |
| Rated Voltage Range (V) | 6.3~50 | 63~100 | | | | | | | |
| Capacitance Range (μF) | 0.47~15000 | | | | | | | | |
| Capacitance Tolerance(25°C, 120Hz) | ±20% | | | | | | | | |
| Leakage Current(μA) | I=0.02CV or 3 whichever is greater (at 25°C, after 2 minutes) C: Nominal Capacitance (μF) V: Rated Voltage (V) | | | | | | | | |
| Dissipation Factor(25°C, 120Hz) | Rate Voltage | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 |
| | Tan δ | 0.22 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 | 0.08 |
| Add 0.02 per 1000 μF or more. | | | | | | | | | |
| Characteristics of Low Temperature | Impedance at -10°C, 100KHz<200% of initial specified value at +20°C, 100KHz (Impedance ratio at 100KHz) | | | | | | | | |
| Load Life (+105°C) | After life test at condition stated in the table below, the capacitors shall meet the following requirement. | | | | | | | | |
| | Case Dia | Test time (hrs) | | | | | | | |
| | ΦD≤8 | 1000 | | | | | | | |
| | ΦD>8 | 2000 | | | | | | | |
| Shelf Life (+105°C) | Ripple current applied | | | | | | | | |
| | Leakage Current | Not more than the specified value. | | | | | | | |
| | Capacitance Change | Within±20% of the initial value | | | | | | | |
| | Dissipation Factor | Not more than 200% of the specified value. | | | | | | | |
| Shelf Life (+105°C) | 1000 hours. No voltage applied. After test:U _R to be applied for 30 minutes, 24 to 48 hours before measurement. | | | | | | | | |

◆ Dimensions

mm

| | | | | | | | |
|-------------|-----------|-----|--------|--------|-----------|-----|----|
| ΦD | 5 | 6.3 | 8 | 10 | 13 | 16 | 18 |
| F | 2.0 | 2.5 | 3.5 | 5.0 | | 7.5 | |
| Φd ±0.05 | 0.5 | | | 0.6 | 0.8 | | |
| a Max | D<18 | | D=18 | | | | |
| | +1.5 -1.0 | | L<35.5 | L≥35.5 | +2.0 -1.0 | | |
| b Max | D<18 | | 0.5 | | | | |
| | D≥18 | | 1.0 | | | | |

◆ Multiplier for ripple current

Frequency coefficient

| Freq(Hz) | 120 | 1K | 10K | 100K |
|------------|------|------|------|------|
| Cap(μF) | | | | |
| 0.47~4.7 | 0.40 | 0.68 | 0.78 | 1.0 |
| 5.6~47 | 0.50 | 0.76 | 0.87 | 1.0 |
| 56~270 | 0.70 | 0.85 | 0.90 | 1.0 |
| 330~1000 | 0.80 | 0.93 | 0.98 | 1.0 |
| 1200~15000 | 0.90 | 0.95 | 1.0 | 1.0 |

Temperature coefficient

| Temperature | +70 | +85 | +105 |
|-------------|------|------|------|
| Factor | 1.96 | 1.68 | 1.0 |

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◆ STANDARD RATINGS

| V μF | 6.3V | 10V | 16V | 25V | 35V | 50V | 63V | 100V |
|---------|--------|--------|--------|--------|--------|----------------|--------|--------|
| 1 | -- | -- | -- | -- | -- | 5x11 | -- | |
| 2.2 | -- | -- | -- | -- | -- | 5x11 | -- | |
| 3.3 | -- | -- | -- | -- | -- | 5x11 | -- | |
| 4.7 | -- | -- | -- | -- | 5x11 | 5x11 | -- | |
| 6.8 | -- | -- | -- | -- | 5x11 | 5x11 | -- | |
| 10 | -- | -- | -- | -- | 5x11 | 5x12 | 5x12 | 6.3x11 |
| 15 | -- | -- | 5x12 | -- | 5x11 | 5x12 | -- | |
| 18 | -- | -- | -- | -- | 5x11 | 5x12 | -- | |
| 22 | -- | -- | -- | 5x11 | 5x11 | 6.3x11 | 6.3x11 | 8x12 |
| 27 | -- | -- | -- | -- | 5x11 | 6.3x11 | -- | |
| 33 | -- | -- | -- | -- | 6.3x11 | 6.3x11 | 6.3x11 | 10x13 |
| 39 | -- | -- | -- | -- | 6.3x11 | 6.3x11 | -- | |
| 47 | -- | -- | 5x11 | 5x11 | 6.3x11 | 6.3x12 | 8x12 | 10x17 |
| 56 | -- | -- | 5x11 | 5x11 | 6.3x11 | 6.3x12 | -- | |
| 68 | -- | -- | 5x12 | 5x12 | 6.3x11 | 8x12 | 10x13 | 10x21 |
| 82 | -- | -- | -- | 6.3x11 | 6.3x11 | 8x12 | -- | |
| 100 | -- | 5x11 | 6.3x11 | 6.3x11 | 8x12 | 8x12 | 10x17 | 13x20 |
| 120 | -- | 5x11 | 6.3x11 | 6.3x11 | 8x12 | 8x16 | -- | |
| 150 | 5x11 | 5x11 | 6.3x11 | 8x12 | 8x12 | 8x19 | -- | |
| 180 | 5x11 | 6.3x11 | 6.3x11 | 8x12 | 8x14 | 8x19 | -- | |
| 220 | 6.3x11 | 6.3x11 | 6.3x11 | 8x12 | 10x17 | 10x17 | 10x21 | 16x26 |
| 270 | 6.3x11 | 6.3x11 | 8x12 | 8x14 | 10x17 | 10x21 | -- | |
| 330 | 6.3x11 | 8x12 | 8x12 | 10x12 | 10x17 | 10x21 | 13x20 | 16x26 |
| 390 | 6.3x12 | 8x12 | -- | 8x19 | 10x17 | 13x20 | -- | |
| 470 | 6.3x12 | 8x12 | 8x12 | 10x17 | 10x17 | 13x20 13x21 | 13x20 | 16x31 |
| 560 | 8x12 | 8x12 | 8x16 | 8x19 | 10x25 | 13x21 | -- | |
| 680 | 8x12 | 8x12 | 8x16 | 10x17 | 13x20 | 13x25 | 16x26 | |
| 820 | 8x14 | 8x16 | 8x19 | 10x25 | 13x20 | 13x25 | -- | |
| 1000 | 8x16 | 8x16 | 10x17 | 10x21 | 13x25 | 13x25 | 16x26 | |
| 1200 | 8x16 | 10x17 | 10x21 | 13x20 | 16x20 | 13x30 | 16x30 | |
| 1500 | 8x16 | 10x21 | 13x20 | 13x20 | 16x20 | 16x26 | -- | |
| 1800 | 10x17 | 10x25 | 13x20 | 13x25 | 16x26 | 16x32 | -- | |
| 2200 | 10x17 | 13x20 | 13x20 | 13x25 | 16x26 | 16x35 | 18x40 | |
| 2700 | 10x21 | 13x21 | 16x26 | 13x25 | 16x35 | 18x40 | -- | |
| 3300 | 13x20 | 13x20 | 13x30 | 16x26 | 16x35 | 18x40 | -- | |
| 3900 | 13x25 | -- | 16x26 | 16x26 | 18x40 | -- | -- | |
| 4700 | 13x25 | 13x25 | 16x26 | 16x26 | -- | -- | -- | |
| 5600 | 16x26 | 16x30 | 16x35 | -- | -- | -- | -- | |
| 6800 | 16x26 | 13x30 | 18x25 | -- | -- | -- | -- | |
| 8200 | 16x32 | 16x35 | -- | -- | -- | -- | -- | |
| 10000 | 16x35 | 16x40 | -- | -- | -- | -- | -- | |

Note: Specification are subject to change without notice. For more detail and update, please visit our website.