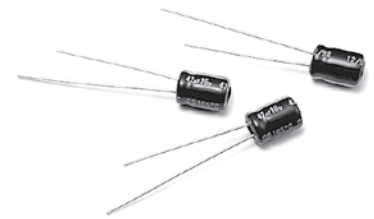


Miniature Aluminum Electrolytic Capacitors

SS [For Super Miniature]

105°C Single-Ended Lead Aluminum Electrolytic Capacitors



DESCRIPTION

This type is designed to meet the demands of equipments with greatly reduced size and thickness, such as: portable micro computers, disk drivers, small calculators and audio equipment.

Applications : Portable Micro Computer; Disk Driver; Small Calculator and Audio

MULTIPLIER FOR RIPPLE CURRENT

Frequency Coefficient

| FREQUENCY (Hz) | 50 | 120 | 300 | 1K | 10K |
|----------------|------|------|------|------|------|
| 0.1~47μF | 0.75 | 1.00 | 1.20 | 1.30 | 1.50 |
| 100~330μF | 0.75 | 1.00 | 1.10 | 1.15 | 1.20 |

Temperature Coefficient

| TEMPERATURE (°C) | 65 | 85 | 105 |
|------------------|------|------|------|
| FACTOR | 1.70 | 1.30 | 1.00 |

ELECTRICAL CHARACTERISTICS

Operating Temperature Range : -40 ~ +105°C

Rated Voltage Range : 4 ~ 63V

Rated Capacitance Range : 0.1 ~ 470μF

Capacitance Tolerance : -20 ~ +20% at 120Hz, 20°C

DC Leakage Current (μA) : I = 0.01CV (μA) or 3μA whichever is greater.
(After Rated Voltage Applied for 2 Minutes)

Dissipation Factor

| | | | | | | | | |
|------------|----|-----|----|----|----|----|----|----|
| WV (V) : | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 |
| D.F. (%) : | 35 | 24 | 20 | 17 | 15 | 12 | 10 | 8 |

Endurance : After the rated voltage has been applied at 105°C for 1000 hours

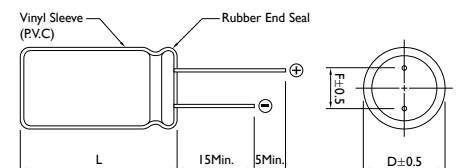
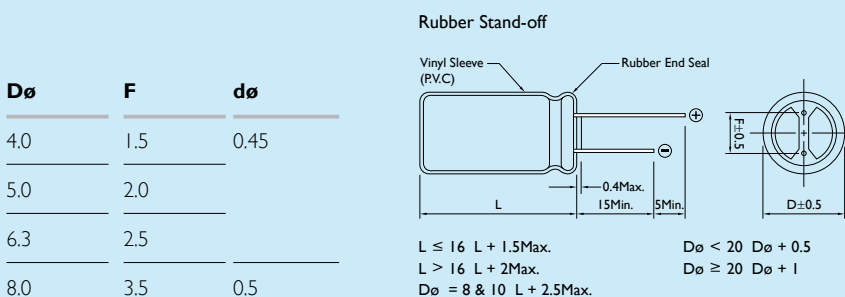
- (a) Capacitance Change : Within 20% of Initial Value
- (b) Dissipation Factor : 200% or Less of Initial Specified Value
- (c) Leakage Current : Initial Specified Value or Less

Shelf Life : After leaving capacitors under load at 105°C for 500 hours.

- (a) Capacitance Change : Within 20% of Initial Value
- (b) Dissipation Factor : 200% or Less of Initial Specified Value
- (c) Leakage Current : 200% or Less of Initial Specified Value

DIAGRAM OF DIMENSIONS

Dimensions: mm





CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D × L: mm

| CAP. (μF) | RATED VOLTAGE WV (SURGE VOLTAGE WV) | | | | | | | | | | | | | | | |
|-----------|-------------------------------------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|---------|---------|--------|
| | 4 (5) | | 6.3 (8) | | 10 (13) | | 16 (20) | | 25 (32) | | 35 (44) | | 50 (63) | | 63 (79) | |
| | SIZE | RIPPLE | SIZE | RIPPLE | SIZE | RIPPLE | SIZE | RIPPLE | SIZE | RIPPLE | SIZE | RIPPLE | SIZE | RIPPLE | SIZE | RIPPLE |
| 0.10 | | | | | | | | | | | | | 4 × 7 | 1 | 4 × 7 | 1 |
| 0.22 | | | | | | | | | | | | | 4 × 7 | 2 | 4 × 7 | 2 |
| 0.33 | | | | | | | | | | | | | 4 × 7 | 3 | 4 × 7 | 4 |
| 0.47 | | | | | | | | | | | | | 4 × 7 | 5 | 4 × 7 | 6 |
| 0.68 | | | | | | | | | | | | | 4 × 7 | 6 | | |
| 1.0 | | | | | | | | 4 × 7 | 10 | | | | 4 × 7 | 10 | 4 × 7 | 13 |
| 2.2 | | | | | | | 4 × 7 | 7 | | | | | 4 × 7 | 19 | 4 × 7 | 21 |
| 3.3 | | | | | | | 4 × 7 | 13 | | | | | 4 × 7 | 24 | 4 × 7 | 26 |
| 4.7 | | | | | | | 4 × 7 | 19 | 4 × 7 | 24 | 4 × 7 | 24 | 4 × 7 | 29 | 4 × 7 | 26 |
| | | | | | | | | | | 5 × 7 | 24 | 5 × 7 | 31 | 6.3 × 7 | 33 | |
| 10 | | | | | 4 × 7 | 22 | 4 × 7 | 29 | 4 × 7 | 33 | 4 × 7 | 34 | 4 × 7 | 37 | 5 × 7 | 42 |
| | | | | | | | | | 5 × 7 | 35 | 5 × 7 | 36 | 5 × 7 | 45 | 6.3 × 7 | 50 |
| | | | | | | | | | 6.3 × 7 | 35 | | | 6.3 × 7 | 45 | | |
| 22 | | | 4 × 7 | 37 | 4 × 7 | 31 | 4 × 7 | 36 | 4 × 7 | 43 | 5 × 7 | 48 | 6.3 × 7 | 65 | | |
| | | | | | 5 × 7 | 38 | 5 × 7 | 44 | 5 × 7 | 51 | 6.3 × 7 | 57 | | | | |
| | | | | | | | | | 6.3 × 7 | 53 | | | | | | |
| 33 | 4 × 7 | 30 | 5 × 7 | 42 | 4 × 7 | 39 | 4 × 7 | 50 | 5 × 7 | 55 | 6.3 × 7 | 70 | 6.3 × 7 | 80 | | |
| | | | | | 5 × 7 | 47 | 5 × 7 | 57 | 6.3 × 7 | 65 | | | | | | |
| 47 | 4 × 7 | 35 | 4 × 7 | 46 | 4 × 7 | 50 | 5 × 7 | 75 | 5 × 7 | 67 | 6.3 × 7 | 81 | | | | |
| | | | 5 × 7 | 55 | 5 × 7 | 60 | 6.3 × 7 | 77 | 6.3 × 7 | 79 | | | | | | |
| | | | | | 6.3 × 7 | 60 | | | | | | | | | | |
| 68 | | | | | | | 5 × 7 | 84 | | | | | | | | |
| 100 | 5 × 7 | 55 | 5 × 7 | 75 | 5 × 7 | 85 | 5 × 7 | 94 | 6.3 × 7 | 120 | | | | | | |
| | | | 6.3 × 7 | 90 | 6.3 × 7 | 100 | 6.3 × 7 | 110 | 8 × 7 | 120 | | | | | | |
| 150 | | | | | | | 6.3 × 7 | 120 | | | | | | | | |
| 220 | 6.3 × 7 | 95 | 6.3 × 7 | 130 | 6.3 × 7 | 135 | 6.3 × 7 | 110 | | | | | | | | |
| | | | | | | | 8 × 7 | 140 | | | | | | | | |
| | | | | | | | 8 × 9 | 140 | | | | | | | | |
| 330 | | | 8 × 7 | 140 | | | 8 × 9 | 155 | | | | | | | | |
| 470 | | | 8 × 7 | 130 | | | | | | | | | | | | |
| | | | 8 × 9 | 150 | 8 × 9 | 165 | 8 × 9 | 170 | | | | | | | | |

Note: I_r Ripple Current: (mA/rms) 105°C, 120Hz