

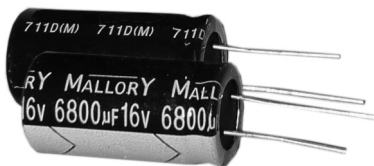


**THE DATASHEET OF
SS4R7M050ST**



Type SS 85 °C Sub-Miniature Aluminum Electrolytic Capacitors

Radial Leaded, General Purpose Aluminum Electrolytic



Type SS is a sub-miniature radial leaded aluminum electrolytic capacitor with a +85 °C, 1000 hour long life rating. The SS has a small size and is ideal for high density packaging applications.

Highlights

- Sub-miniature
- +85 °C
- Great for high density packaging
- Available in T&R and ammo pack

Specifications

| | |
|-------------------------------------|--|
| Capacitance Range: | 0.1 to 100 µF |
| Voltage Range: | 6.3 to 63 Vdc |
| Capacitance Tolerance: | ±20% |
| Operating Temperature Range: | -40 °C to +85 °C |
| DC Leakage Current: | After 2 minutes, +25 °C at rated voltage $I = .01CV$ or 3 µA Max, whichever is greater C = Capacitance in (µF) V = Rated voltage I = Leakage current in µA |

Ripple Multipliers for Voltage and Temperature:

| Rated WVdc | Ripple Multipliers | | |
|---------------|--------------------|--------|-------|
| | 60 Hz | 120 Hz | 1 kHz |
| 6 to 25 | 0.85 | 1.0 | 1.10 |
| 35 to 63 | 0.80 | 1.0 | 1.15 |

| Ambient Temperature | Ripple Multiplier |
|------------------------|----------------------|
| +85 °C | 1.00 |
| +75 °C | 1.14 |
| +65 °C | 1.25 |

Dissipation Factor @ 120 Hz, +20 °C:

| WVdc | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 |
|--------|-----|----|----|----|----|----|----|
| DF (%) | 24 | 20 | 16 | 14 | 12 | 10 | 10 |

For capacitors whose capacitance values exceed 1000 µF, the value of DF (%) is increased 2% for every additional 1000 µF

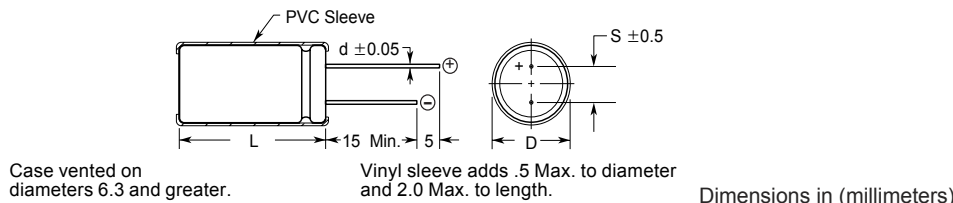
Load Life Test:

Apply WVdc for 1,000 hours at +85 °C
 Capacitance change within 20% of initial limit
 DC leakage current meets initial limits
 ESR ≤ 200% of initial value

Shelf Life:

1000 hrs with no voltage applied
 Cap change within 20% of initial values
 DC leakage meets initial requirement
 DF 200%, meets initial requirement

Outline Drawing



Type SS 85 °C Sub-Miniature Aluminum Electrolytic Capacitors

Part Numbering System

| | | | | | |
|------|--|---------------------------------|---------------------------|--|--|
| SS | 100 | M | 63 | S | T |
| Type | Capacitance (μ F) | Capacitance Tolerance (%) | Rated Voltage (Vdc) | Packaging | Lead Configuration |
| SS | 1R0 = 1 100 = 10 101 = 100 102 = 1000 | M = \pm 20 | 6R3 = 6.3 063 = 63 | A = Tape & Ammo E = Different Characteristic R = Tape & Reel S = Standard | 1 = Lead cut 2 = Lead form 4 = Lead crimp & cut (form) T = Standard |

Ratings

| Cap (μ F) | Catalog Part Number | Max ESR 120 Hz +25 °C (Ω) | Max Ripple 120 Hz +85 °C (mA) | Size in. (mm) | | | |
|--------------------------------|------------------------|---|--|-----------------|---------------|-------------------|------------------|
| | | | | Diameter (D) | Length (L) | Lead Space (S) | Lead Dia. (d) |
| 6.3 Vdc (8 Volts Surge) | | | | | | | |
| 22 | SS220M6R3ST | 14.48 | 34 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 33 | SS330M6R3ST | 9.65 | 42 | .197 (5.0) | .276 (7.0) | .079 (2.0) | .0197 (0.50) |
| 47 | SS470M6R3ST | 6.78 | 50 | .197 (5.0) | .276 (7.0) | .079 (2.0) | .0197 (0.50) |
| 100 | SS101M6R3ST | 3.18 | 77 | .248 (6.3) | .276 (7.0) | .098 (2.5) | .0197 (0.50) |
| 10 Vdc (13 Volts Surge) | | | | | | | |
| 22 | SS220M010ST | 12.06 | 38 | .197 (5.0) | .276 (7.0) | .079 (2.0) | .0197 (0.50) |
| 33 | SS330M010ST | 8.04 | 47 | .197 (5.0) | .276 (7.0) | .079 (2.0) | .0197 (0.50) |
| 47 | SS470M010ST | 5.65 | 59 | .248 (6.3) | .276 (7.0) | .098 (2.5) | .0197 (0.50) |
| 100 | SS101M010ST | 2.65 | 80 | .248 (6.3) | .276 (7.0) | .098 (2.5) | .0197 (0.50) |
| 16 Vdc (20 Volts Surge) | | | | | | | |
| 10 | SS100M016ST | 22.56 | 29 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 22 | SS220M016ST | 10.25 | 44 | .197 (5.0) | .276 (7.0) | .079 (2.0) | .0197 (0.50) |
| 33 | SS330M016ST | 6.84 | 57 | .197 (5.0) | .276 (7.0) | .079 (2.0) | .0197 (0.50) |
| 47 | SS470M016ST | 4.80 | 68 | .248 (6.3) | .276 (7.0) | .098 (2.5) | .0197 (0.50) |
| 25 Vdc (32 Volts Surge) | | | | | | | |
| 4.7 | SS4R7M025ST | 42.35 | 24 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 10 | SS100M025ST | 19.9 | 33 | .197 (5.0) | .276 (7.0) | .079 (2.0) | .0197 (0.50) |
| 22 | SS220M025ST | 9.05 | 51 | .236 (6.0) | .276 (7.0) | .098 (2.5) | .0197 (0.50) |
| 33 | SS330M025ST | 6.03 | 63 | .236 (6.0) | .276 (7.0) | .098 (2.5) | .0197 (0.50) |
| 47 | SS470M025ST | 4.23 | 71 | .248 (6.3) | .276 (7.0) | .098 (2.5) | .0197 (0.50) |

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Ratings

| Cap (μ F) | Catalog Part Number | Max ESR 120 Hz +25 °C (Ω) | Max Ripple 120 Hz +85 °C (mA) | Size in. (mm) | | | |
|--------------------------------|------------------------|---|--|-----------------|---------------|-------------------|------------------|
| | | | | Diameter (D) | Length (L) | Lead Space (S) | Lead Dia. (d) |
| 35 Vdc (44 Volts Surge) | | | | | | | |
| 4.7 | SS4R7M035ST | 33.88 | 24 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 10 | SS100M035ST | 15.92 | 36 | .197 (5.0) | .276 (7.0) | .079 (2.0) | .0197 (0.50) |
| 22 | SS220M035ST | 7.24 | 57 | .248 (6.3) | .276 (7.0) | .098 (2.5) | .0197 (0.50) |
| 50 Vdc (63 Volts Surge) | | | | | | | |
| 0.10 | SSR10M050ST | 1326.96 | 1 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 0.22 | SSR22M050ST | 603.17 | 2 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 0.33 | SSR33M050ST | 402.11 | 3 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 0.47 | SSR47M050ST | 282.33 | 5 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 1.0 | SS010M050ST | 132.70 | 10 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 2.2 | SS2R2M050ST | 60.32 | 19 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 3.3 | SS3R3M050ST | 40.21 | 24 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 4.7 | SS4R7M050ST | 28.23 | 29 | .157 (4.0) | .276 (7.0) | .079 (2.0) | .0180 (0.45) |
| 10.0 | SS100M050ST | 13.27 | 44 | .197 (5.0) | .276 (7.0) | .079 (2.0) | .0197 (0.50) |
| 63 Vdc (79 Volts Surge) | | | | | | | |
| 0.10 | SSR10M063ST | 1061.57 | 1 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 0.22 | SSR22M063ST | 482.53 | 2 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 0.33 | SSR33M063ST | 321.69 | 4 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 0.47 | SSR47M063ST | 225.87 | 6 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 1.0 | SS010M063ST | 106.16 | 13 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 2.2 | SS2R2M063ST | 48.25 | 21 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 3.3 | SS3R3M063ST | 32.17 | 26 | .157 (4.0) | .276 (7.0) | .059 (1.5) | .0180 (0.45) |
| 4.7 | SS4R7M063ST | 22.59 | 33 | .248 (6.3) | .276 (7.0) | .098 (2.5) | .0197 (0.50) |

Parts highlighted in yellow are obsolete



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OBSOLETE

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