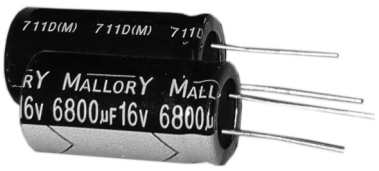
THE DATASHEET OF

SS220M016ST

Type SS 85 ºC 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 ºC, 1000 hour long life rating. The SS has a small size and is ideal for high density packaging applications.

Highlights

- Sub-miniature
- +85 ºC
- 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 ºC to +85 ºC

DC Leakage Current: After 2 minutes, +25 ºC 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 ºC	1.00
+75 ºC	1.14
+65 ºC	1.25

Dissipation Factor @ 120 Hz, +20 ºC:

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 ºC

Capacitance change within 20% of initial limit

DC leakage current meets initial limits

ESR ≤ 200% of initial value

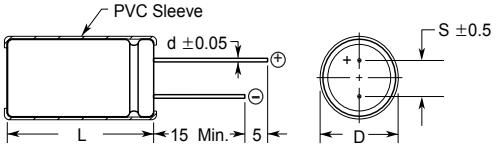
Shelf Life: 1000 hrs with no voltage applied

Cap change within 20% of initial values

DC leakage meets initial requirement

DF 200%, meets initial requirement

Outline Drawing



Case vented on diameters 6.3 and greater.

Vinyl sleeve adds .5 Max. to diameter and 2.0 Max. to length.

Dimensions in (millimeters)

Type SS 85 ºC Sub-Miniature Aluminum Electrolytic Capacitors

Part Numbering System

SS	100	M	63	S	T
Type	Capacitance (µF)	Capacitance Tolerance (%)	Rated Voltage (Vdc)	Packaging	Lead Configuration
SS	1R0 = 1 100 = 10 101 = 100 102 = 1000	M = ±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 (µF)	Catalog Part Number	Max ESR 120 Hz +25 ºC (Ω)	Max Ripple 120 Hz +85 ºC (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)

Ratings

Cap (µF)	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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