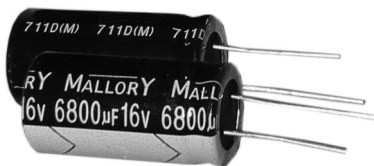


Type SS 85 °C Sub-Miniature Aluminum Electrolytic Capacitors

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

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:

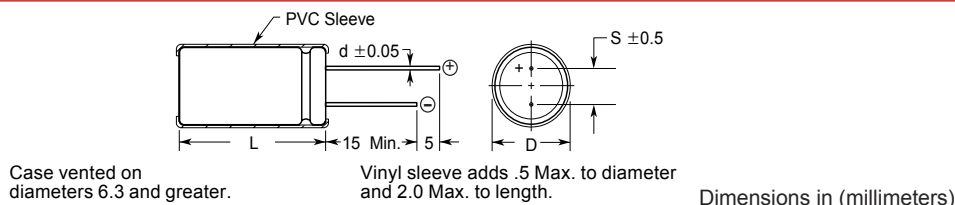
WVdc	6.3	10	16	25	35	50	63
DF (%)	24	20	16	14	12	10	10

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

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 $\leq$ 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	Capacitance Tolerance	Rated Voltage	Packaging	Lead Configuration
(μ F)	(%)	(Vdc)			
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 (μF)	Catalog Part Number	Max ESR	Max Ripple	Size in. (mm)			
		120 Hz +25 °C (Ω)	120 Hz +85 °C (mA)	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)

Type SS 85 °C Sub-Miniature Aluminum Electrolytic Capacitors

Ratings

Cap (μF)	Catalog Part Number	Max ESR	Max Ripple	Size in. (mm)			
		120 Hz +25 °C (Ω)	120 Hz +85 °C (mA)	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

Type SS 85 °C Sub-Miniature Aluminum Electrolytic Capacitors

Notice and Disclaimer: All product drawings, descriptions, specifications, statements, information and data (collectively, the "Information") in this datasheet or other publication are subject to change. The customer is responsible for checking, confirming and verifying the extent to which the Information contained in this datasheet or other publication is applicable to an order at the time the order is placed. All Information given herein is believed to be accurate and reliable, but it is presented without any guarantee, warranty, representation or responsibility of any kind, expressed or implied. Statements of suitability for certain applications are based on the knowledge that the Cornell Dubilier company providing such statements ("Cornell Dubilier") has of operating conditions that such Cornell Dubilier company regards as typical for such applications, but are not intended to constitute any guarantee, warranty or representation regarding any such matter – and Cornell Dubilier specifically and expressly disclaims any guarantee, warranty or representation concerning the suitability for a specific customer application, use, storage, transportation, or operating environment. The Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by Cornell Dubilier with reference to the use of any Cornell Dubilier products is given gratis (unless otherwise specified by Cornell Dubilier), and Cornell Dubilier assumes no obligation or liability for the advice given or results obtained. Although Cornell Dubilier strives to apply the most stringent quality and safety standards regarding the design and manufacturing of its products, in light of the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies or other appropriate protective measures) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage. Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated in such warnings, cautions and notes, or that other safety measures may not be required.