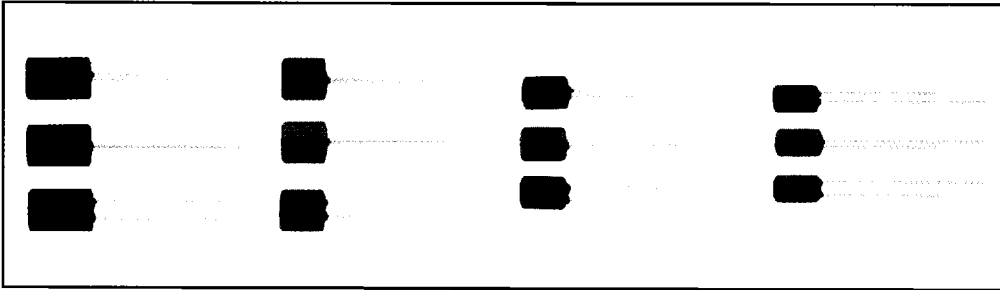


OS-CON® TYPE 94SC Solid Aluminum Capacitors With Organic Semiconductor Electrolyte

A COMPANY OF
VISHAY



FEATURES

- Designed for general use
- Superior high frequency characteristics
- SC capacitors are suitable for use in bypass and filtering applications and switching power supplies

STANDARD RATINGS

CASE CODE	PART* NUMBER	RATED VOLTAGE (V)	NOMINAL CAPACITANCE (μF)	MAX. DF (%)	MAX. LEAKAGE CURRENT (μA)	MAX. ESR 100kHz (Ω)
A	94SC104X0025A__	25.0	0.10	0.03	0.50	0.900
	94SC154X0025A__	25.0	0.15	0.03	0.50	0.750
	94SC224X0025A__	25.0	0.22	0.03	0.50	0.500
	94SC334X0025A__	25.0	0.33	0.03	0.50	0.500
	94SC474X0025A__	25.0	0.47	0.03	0.50	0.500
	94SC684X0025A__	25.0	0.68	0.03	0.50	0.500
	94SC105X0025A__	25.0	1.0	0.03	0.50	0.350
	94SC155X0025A__	25.0	1.5	0.03	0.50	0.350
	94SC225X0016A__	16.0	2.2	0.04	0.50	0.350
	94SC335X0016A__	16.0	3.3	0.04	0.53	0.350
	94SC475X0010A__	10.0	4.7	0.05	0.50	0.350
94SC685X06R3A__	6.3	6.8	0.05	0.50	0.350	
B	94SC225X0025B__	25.0	2.2	0.03	0.55	0.300
	94SC335X0025B__	25.0	3.3	0.03	0.83	0.250
	94SC475X0016B__	16.0	4.7	0.04	0.75	0.250
	94SC685X0016B__	16.0	6.8	0.04	1.09	0.200
	94SC685X0010B__	10.0	6.8	0.05	0.68	0.200
	94SC106X0010B__	10.0	10.0	0.05	1.00	0.200
	94SC106X06R3B__	6.3	10.0	0.05	0.63	0.200
	94SC156X06R3B__	6.3	15.0	0.05	0.95	0.200
C	94SC475X0025C__	25.0	4.7	0.03	1.18	0.150
	94SC685X0025C__	25.0	6.8	0.03	1.70	0.150
	94SC106X0025C__	25.0	10.0	0.03	2.50	0.150
	94SC106X0016C__	16.0	10.0	0.04	1.60	0.150
	94SC156X0016C__	16.0	15.0	0.04	2.40	0.150
	94SC156X0010C__	10.0	15.0	0.05	1.50	0.150
	94SC226X0010C__	10.0	22.0	0.05	2.20	0.150
	94SC226X06R3C__	6.3	22.0	0.05	1.39	0.150
	94SC336X06R3C__	6.3	33.0	0.05	2.08	0.150
D	94SC156X0025D__	25.0	15.0	0.04	3.75	0.125
	94SC226X0016D__	16.0	22.0	0.05	3.52	0.125
	94SC336X0016D__	16.0	33.0	0.06	5.28	0.125
	94SC336X0010D__	10.0	33.0	0.06	3.30	0.125
	94SC476X0010D__	10.0	47.0	0.06	4.70	0.125
	94SC476X06R3D__	6.3	47.0	0.06	2.96	0.125
	94SC226X0025E__	25.0	22.0	0.06	5.50	0.050
F	94SC336X0025F__	25.0	33.0	0.06	8.25	0.040
	94SC476X0025F__	25.0	47.0	0.06	11.75	0.040

* Part Numbers shown are for ± 20% capacitance tolerance. For ± 10% capacitance tolerance, change X0 to X9.

OS-CON® TYPE 94SC

DIMENSIONAL CONFIGURATIONS [Numbers in brackets indicate millimeters]				
<p>Technical drawing of OS-CON Type 94SC capacitor. Dimensions shown: D (total diameter) +.020 [0.5] Max.; L (case length) +.039 [1.0] Max.; Sleeve length .591 [15.0] Min.; Lead length .787 [20.0] Min.; Lead diameter Ø d ±.002 [0.05]; Lead thickness .157 [4.0] Min.; Case thickness F ±.020 [0.5].</p>	CASE CODE	Ø D x L	F	Ø d
	A	.157 x .268 [4.0 x 6.8]	.079 [2.0]	.018 [0.45]
	B	.197 x .268 [5.0 x 6.8]	.079 [2.0]	.018 [0.45]
	C	.248 x .268 [6.3 x 6.8]	.098 [2.5]	.018 [0.45]
	D	.248 x .386 [6.3 x 9.8]	.098 [2.5]	.020 [0.50]
	E	.315 x .413 [8.0 x 10.5]	.138 [3.5]	.020 [0.50]
	F	.394 x .413 [10.0 x 10.5]	.20 [5.0]	.020 [0.50]

ENVIRONMENTAL PERFORMANCE		
ITEMS	CHARACTERISTICS	
1. Operating Temperature Range	- 55°C to + 105°C	
2. Capacitance Tolerance @ 120Hz	X9 = ± 10%. X0 = ± 20%.	
3. Maximum Dissipation Factor @ 120Hz (%)	Values in Standard Ratings table	
4. Leakage Current (µA/2 minutes) (Maximum)	Values in Standard Ratings table	
5. Maximum Equivalent Series Resistance (Ω) (100kHz, from - 25°C to + 35°C)	Values in Standard Ratings table	
6. Temperature Characteristics Maximum Impedance Change at 100kHz	- 55°C	+ 25% Max.
	+ 105°C	- 25% Max.
7. Life Test + 105°C, 2,000 hours (Ø D ≥ 8, 1,000 hours) Rated Voltage Applied (25WV - 20V applied)	Δc/c	Within ± 20% of the initial value
	DF	≤ 1.5 times the initial requirement
	DCL	Shall meet the original requirement
8. Moisture Resistance (+ 60°C, 90 - 95% RH, 1,000 hours, no voltage)	Δc/c	Within ± 10% of the initial value
	DF	≤ 1.5 times the value of Item 3
	DCL	≤ The value of Item 4
9. Reverse Voltage Guarantee	20% of the rated voltage	
10. Voltage Derating	25 volt ratings are derated to 20 volts @ + 105°C	

ALLOWABLE RIPPLE CURRENT				
CASE CODE	PART* NUMBER	≤ + 45°C	+ 85°C	+ 105°C
		100kHz	100kHz	100kHz
A	94SC104X0025A_ _	0.285	0.200	0.071
	94SC154X0025A_ _	0.310	0.217	0.078
	94SC224X0025A_ _	0.335	0.235	0.084
	94SC334X0025A_ _	0.355	0.249	0.089
	94SC474X0025A_ _	0.385	0.270	0.096
	94SC684X0025A_ _	0.420	0.294	0.105
	94SC105X0025A_ _	0.430	0.301	0.108
	94SC155X0025A_ _	0.435	0.305	0.109
	94SC225X0016A_ _	0.450	0.315	0.113
	94SC335X0016A_ _	0.500	0.350	0.125
	94SC475X0010A_ _	0.540	0.378	0.135
	94SC685X06R3A_ _	0.560	0.392	0.140

* Part Numbers shown are for ± 20% capacitance tolerance. For ± 10%, change X0 to X9.

OS-CON® TYPE 94SC

ALLOWABLE RIPPLE CURRENT				
CASE CODE	PART* NUMBER	≤ + 45°C	+ 85°C	+ 105°C
		100kHz	100kHz	100kHz
B	94SC225X0025B _ _	0.695	0.487	0.174
	94SC335X0025B _ _	0.700	0.490	0.175
	94SC475X0016B _ _	0.720	0.504	0.180
	94SC685X0016B _ _	0.745	0.522	0.186
	94SC685X0010B _ _	0.745	0.522	0.186
	94SC106X0010B _ _	0.780	0.546	0.195
	94SC106X06R3B _ _	0.780	0.546	0.195
	94SC156X06R3B _ _	0.815	0.571	0.204
C	94SC475X0025C _ _	1.130	0.791	0.283
	94SC685X0025C _ _	1.140	0.798	0.285
	94SC106X0025C _ _	1.150	0.805	0.288
	94SC106X0016C _ _	1.150	0.805	0.288
	94SC156X0016C _ _	1.230	0.861	0.308
	94SC156X0010C _ _	1.230	0.861	0.308
	94SC226X0010C _ _	1.270	0.889	0.318
	94SC226X06R3C _ _	1.270	0.889	0.318
D	94SC336X06R3C _ _	1.320	0.924	0.330
	94SC156X0025D _ _	1.650	1.155	0.413
	94SC226X0016D _ _	1.800	1.260	0.450
	94SC336X0016D _ _	1.900	1.330	0.475
	94SC336X0010D _ _	1.900	1.330	0.475
	94SC476X0010D _ _	2.020	1.414	0.505
E	94SC476X06R3D _ _	2.020	1.414	0.505
	94SC226X0025E _ _	2.330	1.631	0.583
F	94SC336X0025F _ _	2.900	2.030	0.725
	94SC476X0025F _ _	2.980	2.086	0.745

* Part Numbers shown are for ± 20% capacitance tolerance. For ± 10%, change X0 to X9.

CASE CODE LIST				
CAPACITANCE (µF)	6.3 WVDC	10 WVDC	16 WVDC	25 WVDC
0.1	—	—	—	A
0.15	—	—	—	A
0.22	—	—	—	A
0.33	—	—	—	A
0.47	—	—	—	A
0.68	—	—	—	A
1.0	—	—	—	A
1.5	—	—	—	A
2.2	—	—	A	B
3.3	—	—	A	B
4.7	—	A	B	C
6.8	A	B	B	C
10.0	B	B	C	C
15.0	B	C	C	D
22.0	C	C	D	E
33.0	C	D	D	F
47.0	D	D	—	F

TEMPERATURE COEFFICIENT FOR RIPPLE CURRENT				
Ambient Temperature	~ + 45°C	+ 85°C	+ 95°C	+ 105°C
Coefficient	4.0	2.8	1.6	1.0

PART MARKING**
— Polarity ⊕
— Rated voltage
— Capacitance
— OS-CON®
— Lot number
— Maximum operating temperature (+ 105°C)

** Sleeve color: Blue. Marking: White.