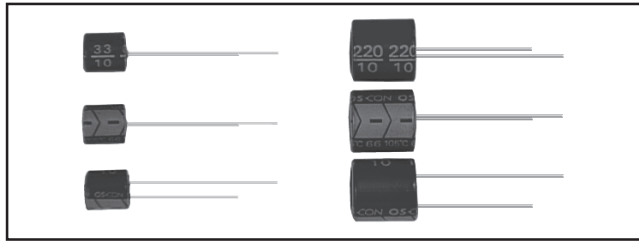


Solid Aluminum Capacitors

With Organic Semiconductor Electrolyte



FEATURES

- High capacitance.
- Miniaturized.
- 94SA capacitors are suitable for high frequency switching power supplies, etc.

STANDARD RATINGS

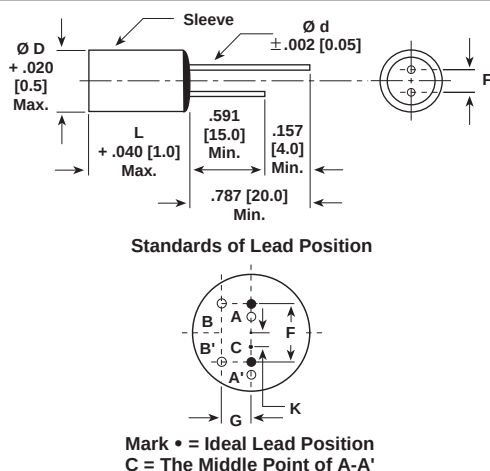
CASE CODE	PART* NUMBER	RATED VOLTAGE (V)	NOMINAL CAPACITANCE (μF)	MAX. ALLOWABLE RIPPLE CURRENT (mA _{rms}) (@ 100kHz, + 45°C)	MAX. LEAKAGE CURRENT (μA) (After 2 Minutes)	MAX. TANGENT OF LOSS ANGLE	MAX. ESR 100k ~ 300kHz (mΩ)
C	94SA156X0020CBP	20.0	15.0	1200	6.00	0.06	90
	94SA226X0020CBP	20.0	22.0	1300	8.80	0.06	70
	94SA336X0016CBP	16.0	33.0	1370	10.56	0.06	70
	94SA476X06R3CBP	6.3	47.0	1430	5.92	0.07	60
D	94SA336X0020DBP	20.0	33.0	1710	13.20	0.06	70
	94SA476X0016DBP	16.0	47.0	1830	15.04	0.06	60
	94SA686X0010DBP	10.0	68.0	2000	13.60	0.07	50
E	94SA476X0020EBP	20.0	47.0	2450	18.80	0.06	40
	94SA686X0020EBP	20.0	68.0	2600	27.20	0.06	36
	94SA107X0016EBP	16.0	100.0	2740	32.00	0.06	30
	94SA157X06R3EBP	6.3	150.0	2780	18.90	0.07	30
F	94SA107X0020FBP	20.0	100.0	3210	40.00	0.06	30
	94SA157X0016FBP	16.0	150.0	3260	48.00	0.06	28
	94SA227X0010FBP	10.0	220.0	3370	44.00	0.07	27
	94SA337X06R3FBP	6.3	330.0	3500	41.58	0.07	25
G	94SA477X0016GBP	16.0	470.0	6080	300.80	0.08	20
H	94SA108X0016HBP	16.0	1000.0	9750	640.00	0.09	15
	94SA228X06R3HBP	6.3	2200.0	9750	554.40	0.13	15

*Part Numbers shown are for ± 20% capacitance tolerance (X0).

94SA156X0020__ Part Number is complete with Case Code and 2 character Package or Process Code. BP as shown indicates Bulk Pack.

DIMENSIONAL CONFIGURATIONS [Numbers in brackets indicate millimeters]

CASE CODE	Ø D x L	F	Ø d	G (Max.)	K (Max.)
C	.248 x .268 [6.3 x 6.8]	.098 ± .020 [2.5 ± 0.5]	.018 [0.45]	.020 [0.5]	.020 [0.5]
D	.248 x .386 [6.3 x 9.8]	.098 ± .020 [2.5 ± 0.5]	.024 [0.60]	.020 [0.5]	.020 [0.5]
E	.315 x .413 [8.0 x 10.5]	.138 ± .020 [3.5 ± 0.5]	.024 [0.60]	.031 [0.8]	.031 [0.8]
F	.394 x .413 [10.0 x 10.5]	.197 ± .020 [5.0 ± 0.5]	.024 [0.60]	.031 [0.8]	.031 [0.8]
G	.492 ± .866 [12.5 ± 22.0]	.197 ± .040 [5.0 ± 1.0]	.031 [0.80]	.031 [0.8]	.031 [0.8]
H	.630 ± .984 [16.0 ± 25.0]	.295 ± .040 [7.5 ± 1.0]	.031 [0.80]	.031 [0.8]	.031 [0.8]





ENVIRONMENTAL PERFORMANCE

ITEMS	CHARACTERISTICS		
1. Operating Temperature Range	- 55°C ~ + 105°C		
2. Capacitance Tolerance @ 120Hz	X0 = ± 20%		
3. Tangent of Loss Angle (tan δ) @ 120Hz	≤ Values in Standard Ratings Table		
4. Leakage Current (μA/2 minutes) (or less)*	0.02 CV (0.04 CV for G, H size)		
5. Equivalent Series Resistance (Ω) (100k ~ 300kHz)	≤ Values in Standard Ratings Table		
6. Temperature Characteristics Impedance Ratio at 100kHz	- 55°C	Z/Z _{20°C}	1.0 ~ 1.25
	+ 105°C	Z/Z _{20°C}	0.75 ~ 1.0
7. High Temperature Load + 105°C, 2,000 hours (Ø D ≥ 12.5, 1,000 hours) Rated Voltage Applied	Δ C/C		Within ± 20% of the initial value
	tan δ		≤ 1.5 times the value of Item 3
	Leakage Current		≤ The value of Item 4
8. Moisture Resistance (+ 60°C, 90 ~ 95% RH, 1,000 hours, no voltage)	Δ C/C		Within ± 10% of the initial value
	tan δ		≤ 1.5 times the value of Item 3
	Leakage Current		≤ The value of Item 4
9. Reverse Voltage Guarantee	Temporary: Less than 20% of the rated voltage Continuous: Less than 10% of the rated voltage		

*If any doubt arises, measure the current after applying voltage (voltage treatment) for 30 minutes at +105°C.
The rated voltage should be for all WV.

CASE CODE LIST

CAPACITANCE (μF)	WV**	6.3	10	16	20
	(SV)***	(7.2)	(11.5)	(18.4)	(23)
15.0	—	—	—	—	C
22.0	—	—	—	—	C
33.0	—	—	—	C	D
47.0	C	—	D	D	E
68.0	—	—	D	—	E
100.0	—	—	—	E	F
150.0	E	—	—	F	—
220.0	—	—	F	—	—
330.0	F	—	—	—	—
470.0	—	—	—	G	—
1000.0	—	—	—	H	—
2200.0	H	—	—	—	—

**WV = Rated Voltage.

*** (SV) = Surge Voltage (at room temperature).

TEMPERATURE COEFFICIENT FOR RIPPLE CURRENT

Ambient Temperature	~ + 45°C	+ 85°C	+ 95°C	+ 105°C
Coefficient	1.0	0.7	0.4	0.25

PART MARKING****

— Polarity ⊖
— Rated voltage
— Capacitance
— OS-CON
— Lot number
— Maximum operating temperature (+ 105°C)

****Sleeve color: Blue. Marking: White.