SANYO

Organic semiconductive electrolyte type / Radial lead type **RoHS compliance**

SS Series

Small size of SC, SA and SL series

SS series is a miniaturized version of SC, SA and SL series.
Suitable for switching power supplies, etc. to make more compact.
Lead free-flow is supported.

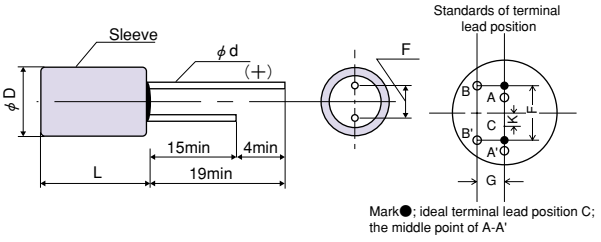
SC (Standard) → SS Small size

■ Specifications

Items	Condition		Specifications				
Rated voltage (V)	–		4.0	6.3	10	16	20
Surge voltage (V)	Room temperature		4.6	7.2	11.5	18.4	23
Category temperature range (℃)	–		−55 to +105				
Capacitance tolerance (%)	120Hz/20℃		M : ±20				
Dissipation Factor (DF)	120Hz/20℃		Please see the attached characteristics list				
Leakage current※1	Rated voltage applied, after 2 minutes		Please see the attached characteristics list				
Equivalent series resistance (ESR)	100kHz to 300kHz/20℃		Please see the attached characteristics list				
Characteristics of impedance ratio at high temp. and low temp.	Based the value at 100kHz, +20℃	−55℃ Z/Z20℃	0.75 to 1.25				
		+105℃ Z/Z20℃	0.75 to 1.25				
Endurance	105℃, 1,000h, Rated voltage applied (E, F size : 2,000h)	△C/C	Within ±20% of the initial value				
		DF	Within 1.5 times of the initial limit				
		LC	Within the initial limit				
Damp heat(Steady state)	60℃, 90 to 95%RH, 1,000h, No-applied voltage	△C/C	Within ±20% of the initial value				
		DF	Within 2 times of the initial limit				
		LC	Within the initial limit				
Resistance to soldering heat	Flow method (260±5℃ X 10s)	△C/C	Within ±5% of the initial value				
		DF	Within 1.5 times of the initial limit				
		LC	Within the initial limit (after voltage processing)				

※1 In case of some problems for measured values, measure after applying rated voltage for 30 minutes at 105℃.

■ Dimensions



(unit : mm)

Size code	φD +0.5max	L max	F	φd ±0.05	G max	K max
A'	4.0	6.0	1.5 ±0.5	0.45	0.5	0.5
B'	5.0	6.0	2.0 ±0.5	0.45	0.5	0.5
C'	6.3	6.0	2.5 ±0.5	0.45	0.5	0.5
D	6.3	10.8	2.5 ±0.5	0.60	0.5	0.5
E	8.0	11.5	3.5 ±0.5	0.60	0.8	0.8
F	10.0	11.5	5.0 ±0.5	0.60	0.8	0.8

■ Size list

RV : Rated voltage

μF \ RV	4.0	6.3	10	16	20
2.2					A'
3.3					A'
4.7				A'	B'
6.8				A'	B'
10			A'	B'	C'
15		A'		B'	C'
22			B'		C'
33		B'		C'	
47					D
68	C'			D	
100			D		E
150	D		E		F
220		E			
330			F		
470	F				

■ SS series characteristics list

Size code	Part number	Rated voltage (V)	Rated capacitance (μF)	ESR(mΩ) (max) 100kHz to 300kHz/20℃	Allowable ripple current (mArms) ※1	DF (% max)	Leakage current (μA)(max) After 2 minutes
A'	20SS2R2M	20	2.2	400	450	5	2.2
	20SS3R3M	20	3.3	400	500	6	3.3
	16SS4R7M	16	4.7	400	540	6	3.76
	16SS6R8M	16	6.8	400	540	6	5.44
	10SS10M	10	10	350	560	6	5
	6SS15M	6.3	15	350	560	6	4.73
B'	20SS4R7M	20	4.7	250	720	5	4.7
	20SS6R8M	20	6.8	180	745	5	6.8
	16SS10M	16	10	150	780	5	8
	16SS15M	16	15	150	780	5	12
	10SS22M	10	22	150	780	5	11
	6SS33M	6.3	33	150	780	5	10.4
C'	20SS10M	20	10	100	1150	6	10
	20SS15M	20	15	100	1230	6	15
	20SS22M	20	22	100	1230	6	22
	16SS33M	16	33	100	1230	6	26.4
	4SS68M	4.0	68	70	1430	6	13.6
D	20SS47M	20	47	60	1830	6	47
	16SS68M	16	68	50	2000	7	54.4
	10SS100M	10	100	40	2100	7	50
	4SS150M	4.0	150	40	2100	8	30
E	20SS100M	20	100	30	2740	7	100
	10SS150M	10	150	30	2780	7	75
	6SS220M	6.3	220	30	3000	7	69.3
F	20SS150M	20	150	30	3200	7	150
	10SS330M	10	330	25	3500	7	165
	4SS470M	4.0	470	25	3500	7	94

※1 100kHz, +45℃

Temperature coefficient for allowable ripple current

Ambient temp.	Tx ≤ 45℃	45℃ < Tx ≤ 65℃	65℃ < Tx ≤ 85℃	85℃ < Tx ≤ 95℃	95℃ < Tx ≤ 105℃
Coefficient	1	0.85	0.7	0.4	0.25

Frequency coefficient for allowable ripple current

Frequency	120Hz ≤ f < 1kHz	1kHz ≤ f < 10kHz	10kHz ≤ f < 100kHz	100kHz ≤ f ≤ 500kHz
Coefficient	0.05	0.2	0.5	1