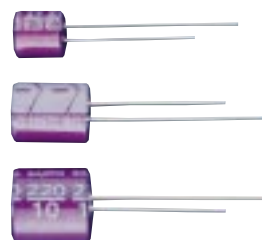


Large capacitance and miniaturized products

Suitable for high frequency switching power supplies, etc.



SA

Series

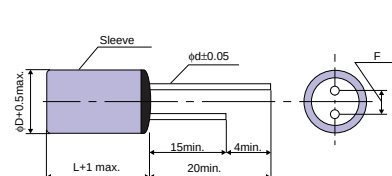
Sleeve color : Purple
 Marking : Polarity($\ominus$), Rated voltage, Capacitance
 (White) **SANYO**, **OS-CON**, Lot.No.
 Max. operating temp.(105°C)

Specifications

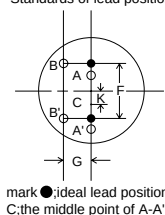
Items	Characteristics		
1. Operating temperature range	-55°C to +105°C		
2. Capacitance tolerance (120Hz)	M : $\pm 20\%$		
3. Tangent of loss angle($\tan\delta$) (120Hz)	Value in Table 2 or less		
4. Leakage current ($\mu A/2min.$)(or less) *1	0.02 CV (0.04 CV for G, H size)		
5. ESR (100k to 300kHz)	Value in Table 2 or less		
6. Temperature characteristics Impedance ratio at 100kHz., +20°C	-55°C	Z / Z _{20°C}	1.0 to 1.25
	+105°C	Z / Z _{20°C}	0.75 to 1.0
7. High-temperature load 105°C, 2,000Hrs. (G, H size ; 1,000Hrs.) Rated voltage applied	$\Delta C/C$		Within $\pm 20\%$
	$\tan\delta$		1.5 times of Item 3 or less
	Leakage current		Item 4 or less
8. Moisture resistance (60°C, 90 to 95%RH, 1,000Hrs. no voltage)	$\Delta C/C$		Within $\pm 10\%$
	$\tan\delta$		1.5 times of Item 3 or less
	Leakage current		Item 4 or less
9. Reverse voltage guarantee	Temporary:less than 20% of the rated voltage, Continuous:less than 10% of the rated voltage		

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

Dimensions



Standards of lead position



(unit : mm)

Size Code	C	D	E	F	G	H
$\phi D \times L$	6.3X6.8	6.3X9.8	8X10.5	10X10.5	12.5X22	16X25
F	2.5 $\pm$ 0.5	2.5 $\pm$ 0.5	3.5 $\pm$ 0.5	5.0 $\pm$ 0.5	5.0 $\pm$ 1.0	7.5 $\pm$ 1.0
ϕd	0.45	0.60	0.60	0.60	0.80	0.80
G(max.)	0.5	0.5	0.8	0.8	0.8	0.8
K(max.)	0.5	0.5	0.8	0.8	0.8	0.8

Size List

WV : Rated voltage
 (SV) : Surge voltage(room temperature)

μF	WV (SV)	6.3 (7.2)	10 (11.5)	16 (18.4)	20 (23)
15					C
22					C
33			C	C	D
47		C		D	E
68			D		E
100			E	E	F
150		E		F	
220			F		
330		F			
470				G	
1000				H	
2200		H			

■Table 2 SA Series Characteristics List

Size Code	Part Number ^{*1}	Rated Voltage (V)	Nominal Capacitance (μF)	ESR (100kHz to 300kHz) (mΩ) (max.)	Maximum allowable ripple current (mA _{rms})*2	Tangent of loss angle (max.)	Leakage current (μA) (max.)*3
C	20SA15M	20	15	90	1200	0.06	6.00
	20SA22M	20	22	70	1300	0.06	8.80
	16SA33M	16	33	70	1370	0.06	10.56
	10SA33M	10	33	70	1370	0.07	6.60
	6SA47M	6.3	47	60	1430	0.07	5.92
D	20SA33M	20	33	70	1710	0.06	13.20
	16SA47M	16	47	60	1830	0.06	15.04
	10SA68M	10	68	50	2000	0.07	13.60
E	20SA47M	20	47	40	2450	0.06	18.80
	20SA68M	20	68	36	2600	0.06	27.20
	16SA100M	16	100	30	2740	0.06	32.00
	10SA100M	10	100	30	2670	0.07	20.00
	6SA150M	6.3	150	30	2780	0.07	18.90
F	20SA100M	20	100	30	3210	0.06	40.00
	16SA150M	16	150	28	3260	0.06	48.00
	10SA220M	10	220	27	3370	0.07	44.00
	6SA330M	6.3	330	25	3500	0.07	41.58
G	16SA470M	16	470	20	6080	0.08	300.80
H	16SA1000M	16	1000	15	9750	0.09	640.00
	6SA2200M	6.3	2200	15	9750	0.13	554.40

*1 Capacitance tolerance : M ; ±20%, Product "K" (capacitance tolerance : ±10%) is optionally available.

*2 100kHz, +45°C

*3 After 2 minutes

Temperature coefficient for ripple current

Ambient Temp.(°C)	to +45	+65	+85	+95	+105
Coefficient	1.0	0.85	0.7	0.4	0.25