

# SF series

## Features

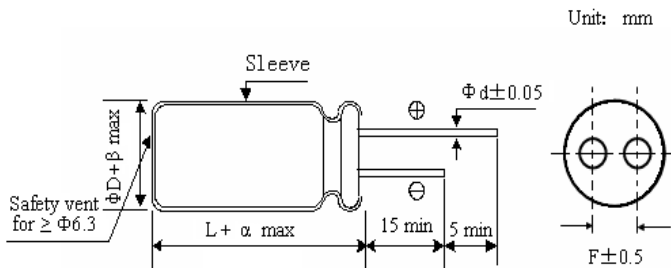
- ◆ 5mm Height , 1000 hours at 85°C.
- ◆ RoHS Compliant .



## Specifications

Item	Performance Characteristics							
Temperature Range	-40~+85°C							
Rated Voltage Range	4~50Vdc							
Capacitance Range	0.1~330μF							
Capacitance Tolerance	±20% (120Hz, +20°C)							
Leakage Current (+20°C,max.)	I≤0.01CV or 3 (μA) After 2 minutes, whichever is greater measured with rated working voltage applied							
Dissipation Factor (tgδ) 120Hz, +20°C	Working Voltage(Vdc)	4	6.3	10	16	25	35	50
	D.F.(%)max.	35	24	20	16	14	12	10
Low Temperature Characteristics (120Hz) Impedance ratio max.	Working Voltage(Vdc)	4	6.3	10	16	25	35	50
	Z - 25°C / Z+20 °C	7	4	3	2	2	2	2
	Z - 40°C / Z+20 °C	15	8	6	4	4	3	3
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 85°C							
	Capacitance Change	≤±20% of the initial value (4V: within ±30%)						
	D.F.( tgδ)	≤200% of the initial specified value						
	Leakage Current	≤The initial specified value						
Shelf Life	After storing the capacitors under no load at 85°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the load life characteristics listed above.							
Others	JISC-5101(IEC 60384)							

## Diagram of Dimensions



## Frequency Multipliers

μF \ Hz	50	120	300	1K	10K~
<68	0.75	1.00	1.35	1.57	2.00
68~330	0.80	1.00	1.23	1.34	1.50
ΦD	4	5	6.3	8	
L	5	5	5	5	
F	1.5	2.0	2.5	3.5	
Φd	0.45	0.45	0.45	0.45	
α	+1.0				
β	+0.5				

## Standard Ratings

wv (V)	Cap (μF)	Case Size	Ripple Current	wv (V)	Cap (μF)	Case Size	Ripple Current	wv (V)	Cap (μF)	Case Size	Ripple Current	wv (V)	Cap (μF)	Case Size	Ripple Current
4	33	4×5	28	10	22	4×5	29	25	4.7	4×5	16	50	0.1	4×5	1.0
	47	4×5	33		33	5×5	41		10	4×5	24		0.22	4×5	2.0
	100	5×5	56		47	6.3×5	52		22	6.3×5	42		0.47	4×5	4.0
	220	6.3×5	96		100	6.3×5	76		47	6.3×5	60		1	4×5	8.4
	330	8×5	145		220	8×5	135		100	8×5	110		2.2	4×5	13
6.3	22	4×5	26	16	10	4×5	23	35	3.3	4×5	15	50	3.3	4×5	17
	33	5×5	37		22	5×5	37		4.7	4×5	18		4.7	5×5	20
	47	5×5	45		33	6.3×5	49		10	5×5	29		10	6.3×5	33
	100	6.3×5	70		47	6.3×5	58		22	6.3×5	46		22	8×5	52
	220	8×5	110		100	6.3×5	80		47	8×5	80		33	8×5	71

Max Allowable Ripple Current (mA,rms) at 85°C 120Hz,Case Size ΦD×L(mm).

Above size is the standard size for our product. If you need special size please contact our sales offices.