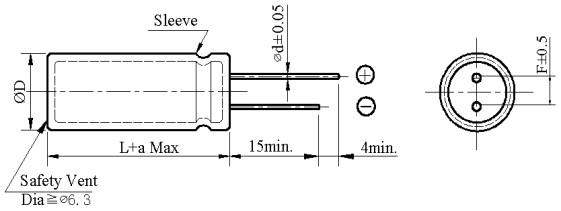
SF Series

- **Load life: 105℃ 2,000 hours, 7mm height**
- **Design for space-saving and high density insertion**
- **Applications: VTR, car radio, car stereos, charger, et**

◆ SPECIFICATIONS

Item	Performance Characteristics
Category Temperature Range	-40 ~ +105℃
Working Voltage Range	6.3 ~ 63Vdc
Capacitance Range	0.1 ~ 220 μF
Capacitance Tolerance	±20% (at 25℃ and 120Hz)
Dissipation Factor (tanδ) (at 25℃, 120Hz)	Rated Voltage (V): 6.3 / 10 / 16 / 25 / 35 / 50 / 63 tanδ(Max): 0.24 / 0.20 / 0.16 / 0.14 / 0.12 / 0.10 / 0.09
Leakage Current	I≦0.01CV or 3 μA I : Leakage current (μA) C : Rated capacitance (μF) V : Rated voltage (V) Impress the rated voltage for 1 minute
Low Temperature Characteristics Impedance Ratio(MAX)	Rated voltage (V): 6.3 / 10 / 16 / 25 / 35 / 50 / 63 Z(-40℃)/Z(+20℃): 10 / 6 / 5 / 4 / 4 / 3 / 3 (at 120Hz)
Endurance	The following requirements shall be satisfied when the capacitor are restored to 25℃ after the rated voltage applied for 2,000 hours at 105℃. Capacitance change: ≦ ±20% of the initial value Dissipation factor(tanδ): ≦ 200% of the specified value Leakage current: ≦ specified value
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 25℃ after the rated voltage applied for 1,000 hours at 105℃ without voltage applied. Capacitance change: ≦ ±20% of the initial value Dissipation factor(tanδ): ≦ 200% of the specified value Leakage current: ≦ 200% of the specified value
Others	Conforms to JIS-C-5101-4 (1998), characteristic W

◆ DIMENSIONS (mm)



ΦD	4	5	6.3	8×7
ΦD	ΦD + 0.5 Max			
Φd	0.45			
F	1.5	2.0	2.5	3.5
a	L + 1.0 Max			

◆ PART NUMBER SYSTEM(Example : 6.3V 100μF)

S F 0 J 1 0 1 M N N 6 3 0 7 _ _ _ _ _ _

- Special Request
- Size code (6307 : 6.3×7)
- Lead length code
- Lead forming Type code
- Capacitance tolerance code(M:±20%)
- Capacitance code (100μF)
- Voltage code (6.3V)
- Series code (SF)

SF Series

◆ **Case size & Permissible rated ripple current: (mA rms) at 105℃ / 120Hz**

Vdc / uF	6.3		10		16		25	
	ΦD × L	RC	ΦD × L	RC	ΦD × L	RC	ΦD × L	RC
4.7							4×7	17
6.8					4×7	16	4×7	19
10					4×7	28	4×7	28
							5×7	33
15			4×7	26	4×7	30	5×7	35
22	4×7	28	4×7	32	4×7	35	5×7	43
					5×7	42	6.3×7	45
33	4×7	32	5×7	48	5×7	50	6.3×7	62
	5×7	35						
47	5×7	47	5×7	51	6.3×7	67	8×7	75
68	5×7	50	6.3×7	68	6.3×7	70	8×7	80
					8×7	78		
100	6.3×7	75	6.3×7	80	8×7	110	8×7	115
			8×7	95				
220	8×7	92	8×7	130				

Vdc / uF	35		50		63	
	ΦD × L	RC	ΦD × L	RC	ΦD × L	RC
0.1			4×7	1.5	4×7	1.5
0.15			4×7	1.8	4×7	1.8
0.22			4×7	2.5	4×7	2.5
0.33			4×7	3.5	4×7	3.5
0.47			4×7	5	4×7	6
0.68			4×7	7	4×7	7
1			4×7	10	4×7	12
1.5			4×7	13	4×7	14
2.2			4×7	20	4×7	20
3.3			4×7	26	5×7	28
4.7	4×7	22	4×7	27	5×7	29
			5×7	29	6.3×7	33
6.8	4×7	24	5×7	32	6.3×7	35
	5×7	28	6.3×7	33		
10	5×7	35	6.3×7	38	6.3×7	40
15	5×7	38	6.3×7	52	8×7	55
	6.3×7	45				
22	6.3×7	60	8×7	63	8×7	65
33	6.3×7	50	8×7	78		
	8×7	68				
47	8×7	80				
68	8×7	85				

◆ **RIPPLE CURRENT MULTIPLIERS**

Frequency Multipliers

Vdc	Cap(uF)	Frequency (Hz)					
		50/60	120	400	1K	10K	50K-100K
6.3 ~ 63	CAP ≦ 10	0.80	1.00	1.30	1.45	1.65	1.70
	100< CAP ≦220	0.80	1.00	1.23	1.36	1.36	1.53