SRT Series

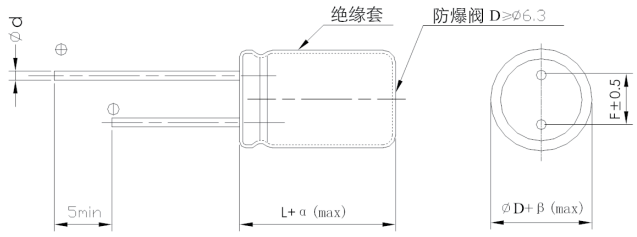
特点 Features

- 耐高纹波电流，高频超低阻抗。
  High ripple current， Extremely Low impedance at high frequency.
- 105℃，4000~10000小时寿命。
  High reliability withstanding 10000 hours load life at 105℃
  （4000~10000 hours for smaller case size as specified bellow）
- 符合RoHS指令。
  Complied to the RoHS directive.

主要技术性能 Specifications

项目 Items	特性 Performance Characteristics
使用温度范围 Operating Temperature Range	-40~+105℃
额定电压范围 Rated Voltage Range	6.3~100V
标称电容量范围 Nominal Capacitance Range	0.47~15000μF
标称电容量允许偏差 Capacitance Tolerance	± 20% (120Hz, +20°C)
漏电流 Leakage Current	I≤0.01CV (μA) or 3μA，取较大值 2分钟(at 20℃, after 2 minutes, whichever is greater)
损耗角正切值 （tgδ） Dissipation Factor (+20℃, 120Hz)	U_R (V) 6.3 10 16 25 35 50 63 100 tgδ 0.22 0.19 0.16 0.14 0.12 0.10 0.09 0.08 容量大于1000μF者，每增加1000μF，其损耗角正切值增加0.02 When nominal capacitance exceeds 1000μF, add 0.02 to the value above for each 1000μF increase.
温度特性Temperature Characteristics (Impedance ratio at 120Hz)	U_R (V) 6.3 10 16 25~100 Z-25℃ / Z+20℃ 4 3 2 2 Z-40℃ / Z+20℃ 8 6 4 3
耐久性 Load Life	ΦD Φ5, 6.3 Φ8, 10 ≥Φ12.5 6.3~10(V) 4,000 hours 6,000 hours 8,000 hours 16~100(V) 5,000 hours 7,000 hours 10,000 hours +105℃加额定电压，恢复16小时后： After applying rated voltage at +105℃ and then resumed for 16 hours: 电容量变化率 Capacitance change： ±25%初始测量值以内 ±25% of the initial measured value 漏 电 流 Leakage current ：≤初始规定值 ≤The initial specified value 损耗角正切值 Dissipation factor ：≤2倍初始规定值 ≤2times of the initial specified value
高温贮存 Shelf Life	+105℃，1000小时贮存后，恢复16小时后： After storage for 1000 hours at +105℃ and then resumed for 16 hours: 电容量变化率 Capacitance change： ±25%初始测量值以内 ±25% of the initial measured value 漏 电 流 Leakage current ：≤2倍初始规定值 ≤2times of the initial specified value 损耗角正切值 Dissipation factor：≤2倍初始规定值 ≤2times of the initial specified value

外形图及尺寸表 Case Size Table



单位 Unit: mm

D	5	6.3	8	10	12.5	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
d	0.5		0.5、0.6	0.6		0.8	0.8

αMAX	‹ L < 20 › 1.5
	‹ L≥20 › 2.0

βMAX	‹ D < 20 › 0.5
	‹ D≥20 › 1.0

频率修正系数 Frequency Coefficient

Freq.(Hz) / CAP(μF)	120	1K	10K	100K
~180	0.40	0.75	0.90	1.00
220~560	0.50	0.85	0.94	1.00
680~1800	0.60	0.87	0.95	1.00
2200~3900	0.75	0.90	0.95	1.00
4700~15000	0.85	0.95	0.98	1.00

https://surgecomponents.com

Surge Components Inc. (USA)
sales@surgecomponents.com
+1 (631) 595-1818

Surge Components EMEA (Europe)
emea@surgecomponents.com
+44-204-593 0098

Surge Components.Ltd. (Asia)
surgehk@surgecomponents.com.hk
+852-2172-7607

尺寸 Dimensions

CAP(μF) \ WV		6.3V(0J)			10V(1A)			16V(1C)			25V(1E)		
		Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple
10	100										5×11	1.20	120
22	220										5×11	1.00	130
33	330										5×11	0.90	150
47	470							5×11	0.58	210	5×11	0.58	210
100	101	5×11	0.58	210	5×11	0.58	210	6.3×11	0.22	340	6.3×11	0.22	350
220	221	6.3×11	0.26	290	6.3×11	0.32	340	8×11.5	0.13	510	8×11.5	0.15	640
330	331	6.3×11	0.21	340	6.3×11	0.20	380	8×11.5	0.10	640	8×16	0.087	840
470	471	8×11.5	0.14	400	8×11.5	0.20	640	8×16	0.087	840	8×20	0.069	1050
								10×12.5	0.080	865	10×16	0.060	1210
680	681	8×11.5	0.13	640	8×16	0.085	840	8×20	0.060	1050	10×20	0.046	1400
								10×16	0.046	1150			
820	821	8×11.5	0.10	720									
1000	102	8×16	0.08	850	8×20	0.069	1050	10×20	0.046	1400	12.5×20	0.035	1900
		10×12.5	0.08	870	10×16	0.060	1210						
1200	122	8×20	0.069	1050									
		10×16	0.064	1200									
1500	152	10×20	0.050	1380	10×25	0.042	1650	12.5×20	0.035	1900	12.5×25	0.027	2230
2200	222	10×25	0.042	1650	12.5×20	0.035	1900	12.5×25	0.027	2230	16×25	0.025	2780
3300	332	12.5×20	0.035	1900	12.5×25	0.030	2125	16×25	0.025	2420	16×30	0.020	2920
4700	472	12.5×25	0.030	2200	16×25	0.025	2400	16×30	0.020	2920	18×35	0.018	3520
6800	682	16×25	0.025	2400	16×30	0.020	2920	18×35	0.018	3520			
10000	103	16×30	0.020	2920	18×35	0.018	3520						
15000	153	16×30	0.020	2920									

CAP(μF) \ WV		35V(1V)			50V(1H)			63V(1J)			100V(2A)		
		Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple
0.47	R47				5×11	5.50	20				5×11	6.00	15
1	010				5×11	3.00	45				5×11	4.50	20
2.2	2R2				5×11	2.50	60				5×11	3.00	30
3.3	3R3				5×11	2.20	65				5×11	2.70	40
4.7	4R7	5×11	1.50	40	5×11	1.90	100				5×11	2.50	65
6.8	6R8										5×11	1.80	105
10	100				5×11	1.50	130	5×11	1.50	105	6.3×11	1.20	140
15	150										6.3×11	1.00	140
22	220				5×11	0.70	200	6.3×11	0.96	200	8×11.5	0.70	210
33	330	5×11	0.58	210	6.3×11	0.60	280	6.3×11	0.96	200	10×12.5	0.50	240
47	470	6.3×11	0.22	340	6.3×11	0.38	290	8×11.5	0.40	360	10×12.5	0.34	400
68	680							8×11.5	0.30	420	10×16	0.30	460
100	101	8×11.5	0.16	460	8×11.5	0.16	600	10×12.5	0.10	685	10×25	0.16	800
											12.5×20	0.18	820
220	221	8×16	0.087	900	10×16	0.084	1050	10×25	0.08	1100	16×20	0.073	1100
		10×12.5	0.080	910									
270	271	8×20	0.069	1000									
330	331	10×16	0.060	1210	10×25	0.055	1480	12.5×20	0.075	1100	16×25	0.070	1300
470	471	10×20	0.046	1400	12.5×20	0.045	1670	12.5×30	0.060	1800			
560	561	10×25	0.042	1650									
680	681	12.5×20	0.035	1900				16×25	0.050	2000			
820	821							18×25	0.048	2200			
1000	102	12.5×25	0.027	2130	16×25	0.025	2410	16×35	0.040	2500			
1200	122							18×30	0.030	2600			
2200	222	16×30	0.025	2610	18×35	0.022	3180						
3300	332	18×35	0.020	3200									

Size φD×L(mm)
Maximum Allowable Ripple Current (mA rms) at 105℃ 100KHz
Maximum ESR (Ω) at 20℃ 100KHz

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Product symbol system for Aluminum Electrolytic Capacitors

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
① Series			② Voltage		③ Capacitance			④ Tolerance	⑤ Size code				⑥ Terminal Code			⑦ Brand	⑧ Sleeve	⑨ Other	⑩ Supplement Code	

① Series

Series is represented by a two-letter code. For example "SGR".

② Voltage

Voltage in volts(V) is represented by a one-digit and one-letter code.
Example:

Voltage(V)	2.5	4	6.3	10	16	25	35	50	63	80	100
Code	0E	0G	0J	1A	1C	1E	1V	1H	1J	1K	2A

Voltage(V)	160	200	250	315	350	400	420	450	500	550
Code	2C	2D	2E	2F	2V	2G	2M	2W	2H	2L

③ Capacitance

Capacitance in μF is represented by a three-digit code.the first two digis are significant and the third digit indicates the number of zeros following the significant figure "R" represents the decimal point for capacitance under 10μF.
Example:

Capacitance(μF)	0.1	0.47	1	4.7	10	47	100	470	1000	4700	10000
Code	0R1	R47	010	4R7	100	470	101	471	102	472	103

④ Tolerance

Tolerance is represented by a one-letter code.
Example:

Tolerance(%)	-5~+5	-10~+10	-15~+15	-20~+20	-0~+20	-5~+20	-10~+20	-0~+30	+10~+30	-10~+30	-15~+20
Code	J	K	Y	M	R	H	V	F	G	Q	E

⑤ Size code

Size code is represented by a one-letter and three-digit code. The first one-letter indicate case diameter in mm .The last three digits indicate case length in mm, When the height of a product exceeds 100mm, if the last digit is 0,it is represented by A, otherwise, it is represented by B .
Example:

ΦD	4	5	6.3	8	10	12	12.5	13	16	18	20	22	25	30	35	40	50	63.5	89
Code	B	C	E	F	G	H	I	J	L	M	O	P	Q	R	S	T	U	W	Y

L	5	5.4	9	10	11	11.5	12	14	16	20	25	50	100	105	110	115	120	200	205
Code	050	054	090	100	110	115	120	140	160	200	250	500	10A	10B	11A	11B	12A	20A	20B

Note:When a case size is required and not shown in the table ,please contact with us for further discussion.

⑥ Terminal Code

Terminal Code is represented by a combination of letters or numbers
SMD Type terminal code (please refer to page11)
Radial type terminal code (please refer to page 12~15)
Snap-in Type and ScrewType terminal code(please refer to page 16~17)
Note:When a terminal code is required and not shown in the table ,please contact with us for further discussion.

⑦ Brand

The Surge trademark is represented by the letter "S".

⑧ Sleeve

The sleeve material is represented by the letter E for PET and V for PVC.

⑨ Other

It is represented by a letter or number for rubber shape or other information.

⑩ Supplement Code

For special control purposes.

For example: SGR 16V 2200μF 20% 12.5×25 taping F=5.0 Brand: Surge PVC Sleeve

S	G	R	1	C	2	2	2	M	I	2	5	0	B	5	0	S	V	0

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