SRH Series

特点 Features

- 长寿命品105℃ 5000小时。 Long Load life of 105℃ 5000 hours.
- 体积Φ8×30~Φ12.5×60。 Body diameter of Φ8×30 to Φ12.5×60.
- 适合于超薄电视、承受高纹波电流。Used in super thin TV. with high ripple current capability.
- RoHS指令已对应完毕。Adapted to the RoHS directive.

主要技术性能 Specifications

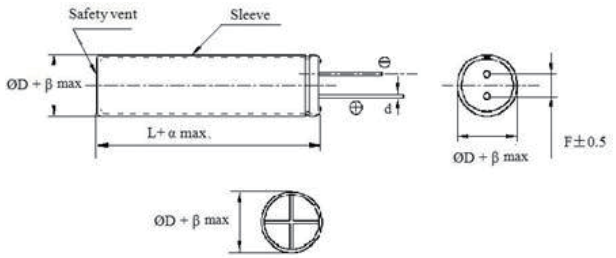
项目 Items	特性 Characteristics
使用温度范围 Operating Temperature Range	-40~+105℃ / -25~+105℃
额定电压范围 Rated Voltage Range	16~100V / 160~450V
标称电容量范围 Nominal Capacitance Range	22~2200μF
标称电容量允许偏差 Capacitance Tolerance	±20%（+20℃，120Hz)
漏电流 Leakage Current	I≤0.02CV+15（μA） 5分钟 （at 20℃, after 5 minutes）
损耗角正切值（tgδ） Dissipation Factor (+20℃, 120Hz)	见下表 / 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 Characteristic (Impedance ratio at 120Hz)	见下表
耐久性 Load Life	+105℃加额定电压5000小时，恢复16小时后： After applying rated voltage for Load life of 5000h， at +105℃ and then resumed for 16 hours: 电容量变化率 Capacitance change： ±20%初始测量值以内 ±20% of the initial measured value 漏 电 流 Leakage current ： ≤初始规定值 ≤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： ±20%初始测量值以内 ±20% 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 ≤2timesf of the initial specified value

U_R (V)	16	25	35	50	63~80	100
tgδ	0.16	0.14	0.12	0.10	0.09	0.08

U_R (V)	160	200	250	400	420	450
tgδ	0.18	0.18	0.18	0.20	0.22	0.24

U_R (V)	16	25	35	50	63	100	160	200	250	400	420	450
Z-25℃ / Z+20℃	2	2	2	2	2	2	4	4	5	6	6	6
Z-40℃ / Z+20℃	6	4	3	3	3	3	-	-	-	-	-	-

外形图及尺寸表 Case Size Table



单位 Unit: mm

D	8	10	12.5
F	3.5	5.0	
d	0.6		
αMAX	2.0		
βMAX	0.5		

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频率修正系数 Frequency Coefficient

6.3~100V

Frequency (Hz) / CAP(μF)	120	1K	10K	100K
330~560	0.50	0.85	0.94	1.00
680~1800	0.60	0.87	0.95	1.00
2200	0.75	0.90	0.95	1.00

160~450V

Freq.(Hz)	60	120	300	1K	10K	≥100K
Coefficient	0.80	1.00	1.25	1.45	1.50	1.50

尺寸 Dimensions

WV / CAP(μF)		16V(1C)			25V(1E)			35V(1V)			50V(1H)		
		Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple
330	331										8×30	0.065	1110
470	471										8×40	0.060	1400
680	681							8×30	0.045	1340	8×45	0.050	1600
820	821				8×30	0.060	1200	8×35	0.042	1450	8×55	0.045	1820
											10×40	0.040	1750
1000	102				8×30	0.055	1300	8×40	0.036	1720	10×45	0.039	1950
1500	152	8×30	0.032	1600	8×45	0.040	1700	8×60	0.035	2080			
								10×40	0.035	1850			
1800	182	8×35	0.028	1760	8×50	0.035	2000	10×45	0.034	2010			
2200	222	8×40	0.027	1960	8×60	0.032	2200						
					10×40	0.032	2100						

WV / CAP(μF)		63V(1J)			80V(1H)			100V(2A)		
		Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple
220	221	8×30	0.060	1150	8×40	0.058	1340	8×50	0.055	1540
330	331	8×40	0.058	1340	8×50	0.050	1620	10×45	0.050	1730
					10×40	0.050	1640			
470	471	8×50	0.045	1700	10×45	0.048	1765	10×60	0.038	2250
680	681	10×45	0.042	1900						

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

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尺寸 Dimensions

CAP(μF)	WV	160V(2C)		200V(2D)		250V(2E)		400V(2G)		420V(2M)		450V(2W)	
		Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
22	220							8×40	225	8×45	235	8×45	255
27	270							8×45	265	10×35	265	10×35	285
33	330					8×40	225	10×35	300	10×40	305	10×40	305
39	390					8×45	245	10×40	330	10×45	350	10×50	380
47	470					8×50	305	10×45	400	12.5×35	420	12.5×40	450
56	560	8×35	260	8×45	285	10×40	335	12.5×35	470	12.5×40	480	12.5×45	500
68	680	8×40	335	8×50	350	10×45	380	12.5×40	530	12.5×45	560	12.5×50	550
82	820	8×45	390	10×40	460	10×50	440	12.5×45	610	12.5×50	625	12.5×50	592
100	101	8×50	470	10×45	490	12.5×45	530	12.5×55	715	12.5×60	730		
120	121	10×40	520	10×50	570	12.5×50	600						
150	151	10×50	650	12.5×45	710	12.5×55	735						
180	181	12.5×40	745	12.5×50	785	12.5×60	830						
220	221	12.5×45	830	12.5×55	880								
270	271	12.5×50	960	12.5×60	1030								
330	331	12.5×55	1100										

Size φD×L(mm)
Maximum Allowable Ripple Current (mA rms) at 105℃ 120Hz

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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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