

## 特点 Features

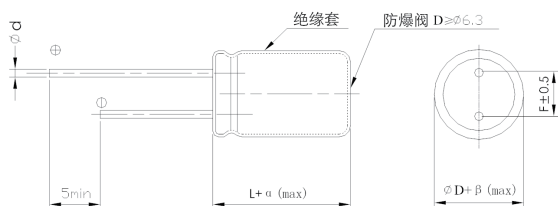
- 特殊的抗雷击及耐大纹波设计，特别适合网络通信类电源适配器使用。  
The design of the special can withstand the surge of lightning, Very suitable for network communication power supply use.
- 体积缩小品，105°C2000小时寿命保证。  
Downsized, 2000 hours at 105°C.
- RoHS指令已对应完毕。  
Adapted to the RoHS directive.



## 主要技术性能 Specifications

项目 Items	特性 Characteristics								
使用温度范围 Operating Temperature Range	-25~+105°C								
额定电压范围 Rated Voltage Range	400~500V								
标称容量范围 Nominal Capacitance Range	2.2~47μF								
标称容量允许偏差 Capacitance Tolerance	±20% (120Hz, +20°C)								
漏电流 Leakage Current	$I \leq 0.03CV (\mu A) + 20\mu A$ 2分钟 (2 minutes) (+20°C)								
损耗角正切值 (tgδ) Dissipation Factor (+20°C, 120Hz)	<table border="1"> <tr> <td><math>U_R (V)</math></td> <td>400</td> <td>450</td> <td>500</td> </tr> <tr> <td>tgδ</td> <td>0.15</td> <td>0.15</td> <td>0.20</td> </tr> </table> (120Hz, +20°C)	$U_R (V)$	400	450	500	tgδ	0.15	0.15	0.20
$U_R (V)$	400	450	500						
tgδ	0.15	0.15	0.20						
温度特性 Temperature Characteristics (Impedance ratio at 120Hz)	<table border="1"> <tr> <td><math>U_R (V)</math></td> <td>400</td> <td>450</td> <td>500</td> </tr> <tr> <td>Z-25°C / Z+20°C</td> <td>6</td> <td>6</td> <td>8</td> </tr> </table>	$U_R (V)$	400	450	500	Z-25°C / Z+20°C	6	6	8
$U_R (V)$	400	450	500						
Z-25°C / Z+20°C	6	6	8						
耐久性 Load Life	+105°C,加额定电压2000小时, 恢复16小时后: After applying rated voltage for 2000hours at +105°C and then resumed 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 ≤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°C,1000小时贮存后, 恢复16小时后: After storage for 1000 hours at +105°C and then resumed 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 ≤2times of the initial specified value								

## 外形图及尺寸表 Case Size Table



单位 Unit: mm

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

αMAX	∠ L < 20 ∠ 1.5	βMAX	∠ D < 20 ∠ 0.5
	∠ L ≥ 20 ∠ 2.0		

## 频率修正系数 Frequency Coefficient

Rated Voltage(V)	Freq.(Hz)		50	120	300	1K	10K	100K
	CAP(μF)							
400~500	2.2~5.6		0.65	1.00	1.35	1.75	2.30	2.50
	6.8~47		0.75	1.00	1.25	1.50	1.75	1.80

## 尺寸 Dimensions

CAP(μF)		WV		400V(2G)		450(2W)		500(2H)	
		Size	Ripple	Size	Ripple	Size	Ripple		
2.2	2R2	6.3×11	35	8×11.5	35	8×11.5	36		
3.3	3R3	8×11.5	45	8×11.5	45	8×11.5	47		
4.7	4R7	8×11.5	60	8×12	63	8×16	65		
5.6	5R6	8×11.5	65	8×12	69	10×14	72		
6.8	6R8	8×12	80	8×16	90	10×16	93		
8.2	8R2	8×16	95	10×14	105	10×16	109		
10	100	10×16	115	10×16	120	12.5×15	122		
12	120	10×16	125	12.5×15	135	12.5×20	138		
15	150	12.5×15	165	12.5×20	180	12.5×20	182		
22	220	12.5×20	220	12.5×20	220	16×17	225		
27	270	12.5×20	240	16×17	280	16×20	283		
33	330	12.5×20	270	16×20	290	18×20	295		
39	390	16×17	295	16×20	320	18×25	322		
47	470	16×20	360	18×20	430	18×25	435		

注：表格中的尺寸为标准尺寸，当需要其他特殊尺寸时请与我们的销售部门联络。  
 Above size is the standard size for our product, if you need special size please contact our salesman.  
 Size φD×L(mm)  
 Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

## Product symbol system for Aluminum Electrolytic Capacitors



### 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  $\mu\text{F}$  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  $10\mu\text{F}$ .

Example:

Capacitance( $\mu\text{F}$ )	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:

$\Phi\text{D}$	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 2200 $\mu\text{F}$  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
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

目录中记载的内容可能未经提示而变更。贵司在购买时请要求提供承认书，并以此为准使用。

The contents recorded in the catalogue might be changed without any reminder.Please ask for providing the datasheet and take it as standard when purchasing.

010