

## 特点 Features

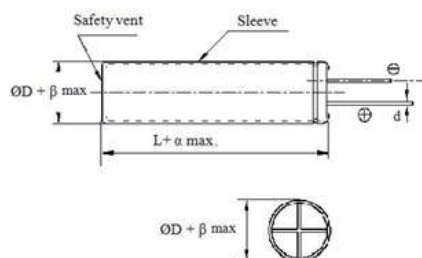
- 长寿命105°C 2000小时。 Long Load life of 105°C 2000h .
- 体积Φ8×30~Φ12.5×60。 Body diameter of Φ8×30 to Φ12.5×60.
- 适合于超薄电视、承受高纹波电流。  
Used in super thin TV.with high ripple current capability.
- RoHS指令已对应完毕。  
Adapted to the RoHS directive.



## 主要技术性能 Specifications

项目 Items	特性 Characteristics																																																						
使用温度范围 Operating Temperature Range	-40~+105°C	-25~+105°C																																																					
额定电压范围 Rated Voltage Range	16~100V	160~500V																																																					
标称电容容量范围 Nominal Capacitance Range	22~2200μF																																																						
标称电容容量允许偏差 Capacitance Tolerance	±20% (+20°C, 120Hz)																																																						
漏电流 Leakage Current	I ≤ 0.02CV + 15 (μA) 5分钟 (at 20°C, after 5 minutes)																																																						
损耗角正切值 (tgδ) Dissipation Factor (+20°C, 120Hz)	<table border="1"> <tr> <td>U<sub>R</sub> (V)</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63~80</td> <td>100</td> </tr> <tr> <td>tgδ</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> </tr> </table>	U <sub>R</sub> (V)	16	25	35	50	63~80	100	tgδ	0.16	0.14	0.12	0.10	0.09	0.08																																								
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Z-25°C / Z+20°C	2	2	2	2	2	2	4	4	5	6	6	6	6																																										
Z-40°C / Z+20°C	6	4	3	3	3	3	-	-	-	-	-	-	-																																										
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 Load life of 2000h , at +105°C 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°C, 1000小时贮存后, 恢复16小时后: After storage for 1000 hours at +105°C 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 ≤2times of the initial specified value																																																						

## 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		



## 尺寸 Dimensions

WV CAP(μF)		160V(2C)		200V(2D)		250V(2E)		400V(2G)		420V(2M)		450V(2W)		500V(2H)	
		Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
22	220							8×35	220	8×40	225	8×45	260		
25	250							8×40	230	8×45	235	8×50	270		
27	270							8×45	245	8×50	245	8×50	290		
33	330					8×35	240	8×50	300	10×35	290	10×40	330		
39	390					8×40	250	10×40	320	10×40	340	10×45	360		
47	470					8×45	310	10×45	400	10×45	400	10×50	410	12.5×45	480
						10×35	310	12.5×30	400	12.5×30	400	12.5×35	400	10×50	448
53	530					10×35	330	10×50	430	10×50	430	10×50	450		
56	560	8×35	265	8×45	290	8×50	340	12.5×30	520	12.5×35	480	12.5×35	450	12.5×50	550
68	680	8×40	340	8×50	360	10×40	390	10×55	550	10×60	545	12.5×40	549	12.5×56	640
		10×30	310	10×35	320	12.5×30	390	12.5×35	540	12.5×40	545	12.5×50	590		
82	820	8×45	400	10×40	420	10×45	450	12.5×40	620	12.5×45	630	12.5×50	620		
100	101	8×50	480	10×45	500	10×50	540	12.5×50	730	12.5×55	730	12.5×60	760		
120	121	10×40	530	10×50	580	12.5×40	610	12.5×50	800						
150	151	10×50	660	12.5×45	720	12.5×50	750								
180	181	12.5×40	760	12.5×50	800	12.5×55	850								
220	221	12.5×45	850	12.5×55	900										
270	271	12.5×50	980	12.5×60	1050										
330	331	12.5×55	1130												

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 digits 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 indicates 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:

$\Phi$ 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 page 11)

Radial type terminal code (please refer to page 12~15)

Snap-in Type and Screw Type 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 $\times$ 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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