

特点 Features

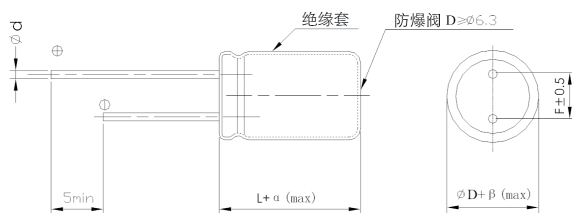
- 125°C2000小时的高温度、高稳定品。
Highly dependable reliability withstanding load life of 2000 hours at +125°C.
- 适应于电动车控制器、汽车仪表类用高可靠性品。
Suited for Electric bicycle control ,automobile electronics with high reliability.
- 符合RoHS标准。Adapted to the RoHS directive.



主要技术性能 Specifications

项目 Items	特性 Characteristics						
使用温度范围 Operating Temperature Range	-40~+125°C						
额定电压范围 Rated Voltage Range	50~100V						
标称电容范围 Nominal Capacitance Range	100~2200μF						
标称电容允许偏差 Capacitance Tolerance	±20% (+20°C, +20Hz)						
漏电流 Leakage Current	$I \leq 0.01CV$ or $3(\mu A)$ 2分钟(at 20°C, after 2 minutes) 取较大者 (whichever is greater)						
损耗角正切值 (tgδ) Dissipation Factor (+20°C, 120Hz)	<table border="1"> <tr> <td>U_R (V)</td> <td>50</td> <td>63~100</td> </tr> <tr> <td>tgδ</td> <td>0.10</td> <td>0.09</td> </tr> </table> <p>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.</p>	U_R (V)	50	63~100	tgδ	0.10	0.09
U_R (V)	50	63~100					
tgδ	0.10	0.09					
温度特性 Temperature Characteristic (Impedance ratio at 120Hz)	<table border="1"> <tr> <td>U_R (V)</td> <td>50-100</td> </tr> <tr> <td>Z-40°C / Z+20°C</td> <td>4</td> </tr> </table>	U_R (V)	50-100	Z-40°C / Z+20°C	4		
U_R (V)	50-100						
Z-40°C / Z+20°C	4						
耐久性 Load Life	<p>+125°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 +125°C and then resumed for 16 hours: 电容变化率 Capacitance change : ±30%初始测量值以内 ±30% 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 : ≤3倍初始规定值 ≤3times of the initial specified value</p>						
高温贮存 Shelf Life	<p>+125°C, 1000小时贮存后, 恢复16小时后: After storage for 1000 hours at +125°C, and then resumed 16 hours: 电容变化率 Capacitance change : ±30%初始测量值以内 ±30% 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 : ≤3倍初始规定值 ≤3times of the initial specified value</p>						

外形图及尺寸表 Case Size Table



单位 Unit: mm

ØD	10	12.5	16	18
L	/	20,25	30,35	30,35,40
F	5.0	5.0	7.5	
d	0.6	0.6	0.8	
α(max)	(L<20) 1.5		(L≥20) 2.0	
β(max)	0.5			

频率修正系数 Frequency Coefficient

频率 Frequency (Hz)	120	1K	10K	100K
修正系数 Coefficient	0.5	0.8	1	1

尺寸 Dimensions

容量 C_r (UF)	代码 Code	电压 U_r	50V(1H)			63V(1J)			
			项目 Item	Size	ESR	Ripple	Size	ESR	Ripple
				$\phi D \times L$ (mm)	(Ω MAX)	(mA)	$\phi D \times L$ (mm)	(Ω MAX)	(mA)
220	221			10×20	0.098	475	10×20	0.096	768
330	331			10×20	0.075	1000	12.5×20	0.075	1095
470	471			12.5×20	0.072	1195	12.5×20	0.068	1465
680	681			12.5×20	0.045	1538	12.5×25	0.045	1708
1000	102			16×30	0.038	1835	16×25	0.038	1835
2200	222			18×30	0.035	1850	18×35	0.030	2710

容量 C_r (UF)	代码 Code	电压 U_r	50V(1H)			63V(1J)			
			项目 Item	Size	ESR	Ripple	Size	ESR	Ripple
				$\phi D \times L$ (mm)	(Ω MAX)	(mA)	$\phi D \times L$ (mm)	(Ω MAX)	(mA)
100	101			10×16	0.11	480	10×20	0.16	528
220	221			12.5×20	0.096	988	12.5×25	0.096	992
330	331			12.5×25	0.085	1210	16×25	0.070	1390
470	471			16×25	0.065	1555	16×25	0.065	1558
1000	102			16×30	0.048	2115	18×40	0.038	2320

Size $\phi D \times L$ (mm)
 Maximum Allowable Ripple Current (mA rms) at 125°C 100KHz
 Maximum ESR(Ω) at 20°C 100KHz

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 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 $10\mu\text{F}$.

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 2200 μF 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