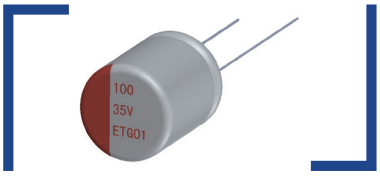
特点 Features

- 保证125℃ 2000小时。Endurance: 2000 h at 125℃.
- 额定电压范围：10~100V DC。Rated Voltage Range:10~100V DC.
- 适用于开关电源 、PD协议充电器、服务器设备。
  Applications : Switching Power Supply, PD protocol charger, service equipment.
- 满足RoHS要求。RoHS Compliant and lead-free.
- 满足无卤要求。Halogen Free compliant.



主要技术性能 Specifications

项目 Items	特性 Characteristics	
工作温度范围 Operating Temperature Range	-55~+125℃	
额定电压范围 Rated Voltage Range	10~100V DC	
标称电容量范围 Nominal Capacitance Range	12~2200μF	
标称电容量允许偏差 Nominal Capacitance Tolerance	±20%（20℃，120Hz）	
漏电流 Leakage Current	≤0.1CV(μA) 20℃， 2分钟 at 20℃， after 2 minutes C：静电容量(μF)、V：额定电压(VDC)	
损耗角正切（tgδ） Dissipation Factor (Max)	20℃, 120Hz	额定电压(Vdc) / Tgδ: 10~25V: 0.14; 35~100V: 0.10
等效串联电阻 ESR	参照规格表 Reference parameter table (mΩ at 100k~300kHz 20℃ max)	
耐久性 Load Life	+125℃施加额定电压2000小时后，待温度恢复到20℃后进行测试，电容器应满足以下要求： After 2000 hours' application of rated voltage at 125℃, and then being stabilized at +20℃, the capacitors shall meet the following requirement:	
	电容量变化率 Capacitance Change	±20%初始值以内 Within ±20% of the initial value
	损耗角正切 Dissipation Factor	≤ 150%初始规定值 Not to exceed 150% of the value specified
	阻抗 Equivalent Series Resistance	≤ 150%初始规定值 Not to exceed 150% of the value specified
	漏电流 Leakage Current	≤ 初始规定值 Not to exceed the value specified
高温贮存 Shelf Life Test	在125℃±2℃环境中，无负荷放置1000H后，待温度恢复到20℃后进行测试，电容器应满足以下要求： After storage for 1000 hours at +125℃±2℃ with no voltage applied and then being stabilized at +20℃, the capacitors shall not exceed the specified values listed below:	
	电容量变化率 Capacitance Change	±20%初始值以内 Within ±20% of the initial value
	损耗角正切 Dissipation Factor	≤ 150%初始规定值 Not to exceed 150% of the value specified
	阻抗 Equivalent Series Resistance	≤ 150%初始规定值 Not to exceed 150% of the value specified
	漏电流 Leakage Current	≤ 初始规定值 Not to exceed the value specified

※ 当产生疑问的时候，用以下电压处理后测定。
电压处理: 125℃下，连续加载120 分钟的电压。加载电压为额定电压。
When in doubt, apply the following voltage treatment and measure.
Voltage processing: under the condition of 125 ℃ ambient temperature, continuous load voltage of 120 minutes. Load voltage is rated voltage.

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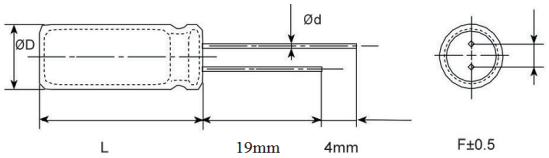
尺寸图 Dimensions



尺寸表 Size List

单位 Unit: mm

ΦD（+0.5max)	6.3	8	10
F（±0.5)	2.5	3.5	5
Φd(±0.05)	0.6	0.6	0.6
L	+1.0max		

标称电容量、额定电压、额定纹波电流与尺寸对应表
Nominal Capacitance, Rated Voltage, Rated Ripple Current and Case Size Table

Rated Volt. (V)	Capacitance (uF)	Size ΦD×L(mm)	Tanδ (120HZ,20℃)	LC (μA)	ESR (mΩ/at 100k~300kHz 20℃ max)	Rated R. C. (mA/rms at 100kHz，125℃)
10	330	6.3×8	0.14	330	20	1320
	470	8×8	0.14	470	16	1440
	560	6.3×11	0.14	560	16	1440
	1200	8×12	0.14	1200	14	1720
	1200	8×16	0.14	1200	12	1920
	1500	10×12.5	0.14	1500	10	2040
	2200	10×16	0.14	2200	10	2160
16	220	6.3×8	0.14	352	26	1160
	330	6.3×11	0.14	528	20	1360
	330	8×8	0.14	528	20	1360
	680	8×12	0.14	1088	15	1560
	820	8×16	0.14	1312	15	1600
	1000	8×16	0.14	1600	15	1680
	1200	10×12.5	0.14	1920	12	1800
	1500	10×16	0.14	2400	12	1840
25	100	6.3×8	0.14	250	28	920
	220	6.3×11	0.14	550	24	1080
	220	8×8	0.14	550	24	1080
	330	8×12	0.14	825	20	1320
	470	10×12.5	0.14	1175	15	1400
	560	8×16	0.14	1400	18	1440
	680	8×16	0.14	1700	18	1440
	680	10×12.5	0.14	1700	15	1520
	1000	10×16	0.14	2500	15	1680
35	68	6.3×8	0.1	238	40	800
	100	6.3×11	0.1	350	35	920
	100	8×8	0.1	350	35	920
	150	8×12	0.1	525	30	1160
	270	8×16	0.1	945	28	1240
	330	10×12.5	0.1	1155	25	1320
	470	10×16	0.1	1645	25	1400

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Rated Volt. (V)	Capacitance (uF)	Size ΦD×L(mm)	Tanδ (120HZ,20℃)	LC (μA)	ESR (mΩ/at 100k~300kHz 20℃ max)	Rated R. C. (mA/rms at 100kHz, 125℃)
50	27	6.3×8	0.1	135	40	800
	56	6.3×11	0.1	280	35	880
	56	8×8	0.1	280	35	880
	100	8×12	0.1	500	32	960
	120	8×16	0.1	600	30	1040
	180	10×12.5	0.1	900	28	1160
	220	10×16	0.1	1100	28	1240
63	22	6.3×8	0.1	139	45	640
	33	6.3×11	0.1	208	40	760
	33	8×8	0.1	208	40	760
	68	8×12	0.1	428	36	960
	100	8×16	0.1	630	32	1040
	100	10×12.5	0.1	630	30	1160
	120	10×12.5	0.1	756	30	1160
	180	10×16	0.1	1134	30	1240
80	15	8×8	0.1	120	55	600
	27	8×12	0.1	216	45	760
	33	8×16	0.1	264	40	800
	47	10×12.5	0.1	376	40	920
	68	10×16	0.1	544	35	1040
100	12	8×8	0.1	120	55	600
	22	8×12	0.1	220	45	760
	33	8×16	0.1	330	40	800
	33	10×12.5	0.1	330	40	920
	56	10×16	0.1	560	35	1040

额定纹波电流频率修正系数
Frequency correction factor for ripple current

Frequency（KHz）	0.1≤Freq.≤0.5	0.5 < Freq.≤1	1 < Freq.≤5	5 < Freq.≤10	10 < Freq.≤50	50 < Freq. < 100	100≤Freq.≤300
Coefficient	0.10	0.30	0.4	0.6	0.75	0.9	1

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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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