

特点 Features

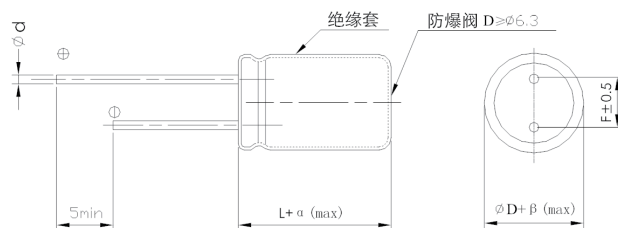
- 耐高纹波，耐高温，长寿命，105°C 5000~6000小时。
High Ripple Current High Temperature, Long Life, Life time 105°C 5000~6000 hours.
- 专为LED驱动电源设计制造。
Specially designed for light emitting diode lamp (LED) drive source.
- RoHS指令已对应完毕。
Adapted to the RoHS directive.



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	
额定电压范围 Rated Voltage Range	16~100V	160~450V
标称容量范围 Nominal Capacitance Range	0.47~4700μF	
标称容量允许偏差 Capacitance Tolerance	±20% (120Hz, +20°C)	
漏电流 Leakage Current (+20°C)	I ≤ 0.01CV 或 3(μA) 2分钟 取较大者 (at 20°C, after 2 minutes) (whichever is greater)	I ≤ 0.02 CV + 10μA (2分钟, 20°C) 0.02CV + 10μA (at 20°C, after 2 minutes)
C: 标称容量Capacitance (μF); V: 额定电压Rated voltage range (V)		
损耗角正切值 (tgδ) Dissipation Factor (+20°C, 120Hz)	U _R (V)	16 25 35 50 63 100
	tgδ	0.16 0.14 0.12 0.10 0.09 0.09
	U _R (V)	160 200 250 350 400 450
	tgδ	0.15 0.15 0.15 0.20 0.20 0.20
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 Characteristics (Impedance ratio at 120Hz)	U _R (V)	16 25 35 50 63 100 160 200 250 350 400 450
Z-40°C / Z+20°C		8 6 6 6 4 4 6 6 6 7 7 9
耐久性 Load Life	在+105°C条件下，施加含额定纹波电流的额定电压，持续规定时间，并在+20°C下恢复16小时后，电容器应符合下列要求 The following specifications shall be met when the capacitors are restored to +20°C for 16 hours after D.C. bias rated ripple current is applied at +105°C, the peak voltage shall not exceed the voltage. Time : 5000hours(φ5~φ6.3) or 6000hours(φ≥8) 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	
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外形图及尺寸表 Case Size Table



单位 Unit: mm

D	5	6.3	8	10	12.5	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
d	0.5	0.5	0.5、0.6	0.6	0.6	0.8	0.8
αMAX	〈 L < 20 〉 1.5						
	〈 L ≥ 20 〉 2.0						
βMAX	0.5						

LB 系列 Series

特点 Features

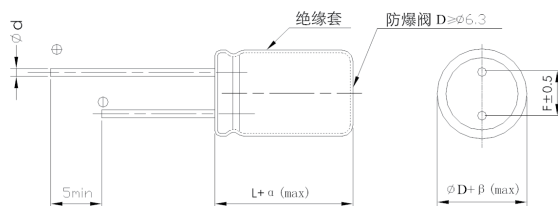
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αMAX	< L < 20 > 1.5	βMAX	0.5
	< L ≥ 20 > 2.0		

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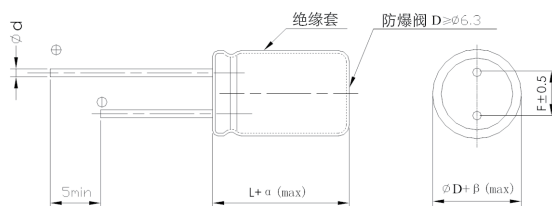
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单位 Unit: mm

D	5	6.3	8	10	12.5	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
d	0.5	0.5	0.5, 0.6	0.6	0.6	0.8	0.8

αMAX	α L < 20 > 1.5	βMAX	0.5
	α L ≥ 20 > 2.0		

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尺寸 Dimensions

CAP(μF)		WV		250V(2E)			350V(2V)			400V(2G)			450V(2W)		
				Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple
1.0	010				6.3×11	33.0	45	6.3×11	33.0	60	8×11.5	33.0	60		
1.2	1R2				6.3×11	33.0	48	6.3×11	33.0	65	8×11.5	33.0	65		
1.5	1R5				6.3×11	33.0	50	6.3×11	33.0	70	8×11.5	33.0	70		
1.8	1R8				6.3×11	33.0	55	6.3×11	33.0	75	8×11.5	33.0	72		
2.2	2R2	6.3×11	15.1	75	6.3×11	33.0	55	6.3×11	33.0	80	8×11.5	18.42	75		
2.7	2R7	6.3×11	15.1	80	6.3×11	33.0	65	8×11.5	33.0	85	8×11.5	18.42	80		
3.3	3R3	6.3×11	15.1	85	8×11.5	21.0	75	8×11.5	21.0	95	8×11.5	18.42	85		
3.9	3R9	6.3×11	11.8	90	8×11.5	21.0	80	8×11.5	21.0	100	8×16	18.42	90		
4.7	4R7	8×11.5	11.8	105	8×11.5	21.0	85	8×11.5	14.0	105	8×16	13.5	100		
								8×16	14.0	115					
5.6	5R6	8×11.5	10.96	110	8×16	21.0	105	8×16	13.5	130	10×16	13.5	115		
								10×12.5	13.5	130					
6.8	6R8	8×11.5	10.96	120	8×16	16.2	130	8×16	10.2	135	10×16	12.0	150		
								10×12.5	10.2	140					
8.2	8R2	8×11.5	10.96	125	8×20	13.5	145	10×16	10.2	220	10×16	12.0	200		
					10×16	13.5	150								
10	100	8×16	10.96	180	8×20	13.5	210	10×16	4.50	240	10×20	8.15	225		
		10×12.5	9.89	200	10×16	13.5	215				12.5×15	6.50	230		
15	150	10×12.5	6.80	320	10×20	9.50	285	10×25	4.30	300	12.5×20	6.50	330		
								12.5×20	4.30	300					
18	180				10×25	8.15	330	12.5×20	4.30	350	12.5×20	6.50	350		
		10×16	6.80	350	12.5×20	8.15	378								
22	220	10×16	4.65	390	12.5×20	8.15	410	12.5×20	4.14	380	12.5×25	2.30	430		
								8×50	4.14	380					
33	330	12.5×20	4.65	530	12.5×25	7.33	475	16×20	4.14	540	16×25	2.30	530		
											10×50	2.30	530		
47	470	12.5×20	4.65	625	16×25	4.14	540	16×25	4.14	630	16×30	1.36	700		
					10×50	4.14	600								
56	560	12.5×25	2.95	660	16×25	4.14	610	16×30	4.14	680	16×35	1.36	720		
		16×25	2.95	720	16×30	3.50	700	18×30	3.50	760	18×30	1.09	770		
68	680							12.5×50	3.50	760					
		16×25	1.41	745	16×30	3.50	790	18×30	3.05	910	18×35	1.09	880		
82	820				12.5×50	3.50	790								
		16×30	1.41	835	16×35	3.05	900	18×35	2.75	1020	18×40	0.85	950		
120	121	18×25	1.41	850	18×35	3.05	980								
150	151	16×35	0.92	970	18×40	2.05	1070								
180	181	18×35	0.92	1050											
220	221	18×40	0.77	1250											

Size φD×L(mm)

Maximum Allowable Ripple Current (mA rms) at 105°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 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(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 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:

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 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 μF 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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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.

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