

SL Series

SL series Low Leakage Current

SL系列低漏电产品

- 低漏电 Low profile
- 在高频范围内的低ESR, 允许大纹波电流 Low ESR at high frequency rang&Large permissible ripple current

■ 主要技术性能 Specifications

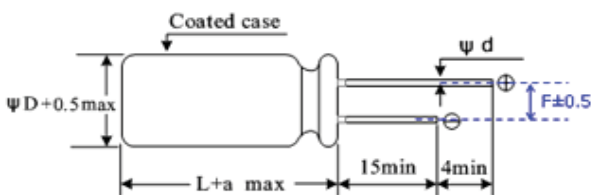
项目 item	性能、特点 Performance Characteristics	
使用工作范围 Operating Temperature Range	-55~+105℃	
额定电压范围 Rated Voltage Range	2.5~25vdc	
容量公差 Capacitance Tolerance	±20%(120Hz,+20℃)	
漏电流 Leakage Current(+20℃,max)	充电2分钟后漏电≤0.2cv ≤0.2CV(μA,after 2 minutes)	
损耗系数 Dissipation Factor (tanδ,at 20℃,120Hz)	不超过指定值 Not to exceed the value specified	
ESR(100KHz)	不超过指定值 Not to exceed the value specified	
耐久性 Endurance 105℃, 2000h, 不超过额定电压 105℃,2000h,at rated voltage	Capacitance Change	测试前的值的±20%以内 Within ±20% of the value before test
	Leakage Current	不超过指定值 Not to exceed the value specified
	ESR	不超过指定值的150% Not to exceed 150% of the value specified
	Dissipation Factor	不超过指定值的150% Not to exceed 150% of the value specified
耐湿性 Moisture Resistance 存放在60℃,RH90~95%,2000h Stored at 60℃,RH90~95%,2000h	Capacitance Change	测试前的值的±20%以内 Within ±20% of the value before test
	Leakage Current	不超过指定值 Not to exceed the value specified
	ESR	不超过指定值的150% Not to exceed 150% of the value specified
	Dissipation Factor	不超过指定值的150% Not to exceed 150% of the value specified

■ 纹波电流的频率系数 Frequency Coefficient for Ripple Current

Frequency	120Hz≤freq.<1KHz	1KHz≤freq.<10KHz	10KHz≤freq.<100KHz	100KHz≤freq.<300KHz
Coefficient	0.05	0.3	0.7	1

■ 外形图及尺寸图

Case size table



ΦDXL	ΦD+0.5max	a	F±0.5	Φd±0.05
4X5	4.0	1.0	1.5	0.45
5X5	5.0	1.0	2.0	0.45
6.3X5.2	6.3	1.0	2.5	0.45
6.3X7	8.0	1.0	2.5	0.5
5X11	8.0	1.5	2.0	0.5
6.3X11	10	1.5	2.5	0.6

SL Series

■ 尺寸清单 Size List

Cap(uF) \ WV (sv)	2.5 (2.8)	4 (4.6)	6.3 (7.2)	10 (11.5)	16 (18.4)	20 (23)	25 (27.5)
10				4×5	6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3X5.2/6.3X7
15				4×5	6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3X5.2/6.3X7
22				4×5	6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3×7
33				5X5/6.3X5.2	6.3X5.2/6.3X7	6.3×7	6.3×7
39				5X5/6.3X5.2	6.3X5.2/6.3X7	6.3×7	6.3×7
47				6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3×7	6.3×11
68				6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3×11	
82				6.3X5.2/6.3X7	6.3×7		
100	4X5/5X5	5X5	6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3X7/6.3×11		
150	6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3×11		
180	6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3×7	6.3×11		
220	6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3X5.2/6.3X7	5X11/6.3X7			
270	6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3×11			
330	6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3×11			
390	6.3X5.2/6.3X7	6.3X5.2/6.3X7	6.3X5.2/6.3X7				
470	6.3X5.2/6.3X7	6.3×7	6.3×11				
560	6.3X7	6.3×11					
680	6.3X11						

SL Series

■ 尺寸及特性 Dimensions & Characteristics

W.V (V)	Capacitance (μ F)	LC. (μ A,2min)	tg δ (120Hz,20 $^{\circ}$ C)	ESR (m Ω ,100KHz)	Maximum Permissible Current(mA,rms)	Size Φ DXL(mm)
2.5	100	150	0.08	30	1670 / 1970	4X5 / 5X5
	150	150	0.08	30	1970 / 2200	5X5 / 6.3X5.2
	180	150	0.08	30	1970 / 2200	5X5 / 6.3X5.2
	220	150	0.08	30	2200 / 2610	5X5 / 6.3X5.2
	270	150	0.08	25	2610	6.3X5.2
				20	2690	6.3X7
	330	150	0.08	25	2610	6.3X5.2
				20	2690	6.3X7
	390	150	0.08	20	2690	6.3X5.2 / 6.3X7
	470	150	0.08	15	3100	6.3X5.2 / 6.3X7
560	150	0.08	15	3100	6.3X7	
680	150	0.08	15	3500	6.3X11	
4	100	150	0.08	30	1970	5X5
	150	150	0.08	30	2200	6.3X5.2
				25	2670	6.3X7
	180	150	0.08	30	2200	6.3X5.2
				25	2670	6.3X7
	220	150	0.08	25	2610	6.3X5.2
				20	2690	6.3X7
	270	150	0.08	25	2610	6.3X5.2
				20	2690	6.3X7
	330	150	0.08	20	2690	6.3X5.2
15				3100	6.3X7	
390	150	0.08	15	3100	6.3X5.2 / 6.3X7	
470	150	0.08	15	3100	6.3X7	
560	150	0.08	15	3500	6.3X11	
6.3	100	150	0.08	25	2390	6.3X5.2
				20	2690	6.3X7
	150	150	0.08	25	2390	6.3X5.2
				20	2690	6.3X7
	180	150	0.08	20	2690	6.3X5.2 / 6.3X7
	220	150	0.08	15	3100	6.3X5.2 / 6.3X7
	270	150	0.08	15	3100	6.3X5.2 / 6.3X7
	330	150	0.08	15	3100	6.3X5.2 / 6.3X7
390	150	0.08	15	3500	6.3X5.2 / 6.3X7	
470	150	0.08	15	3500	6.3X11	

SL Series

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w.v (V)	Capacitance (μ F)	LC. (μ A,2min)	tg δ (120Hz,20 $^{\circ}$ C)	ESR (m Ω ,100KHz)	Maximum Permissible Current(mA,rms)	Size Φ DXL(mm)
10	10	150	0.08	45	1200	4X5
	15	150	0.08	45	1200	4X5
	22	150	0.08	45	1200	4X5
	33	150	0.08	45	1670	5X5
				30	2200	6.3X5.2
	39	150	0.08	45	1670	5X5
				30	2200	6.3X5.2
	47	150	0.08	30	2200	6.3X5.2
				20	2690	6.3X7
	68	150	0.08	30	2200	6.3X5.2
				20	2690	6.3X7
	82	150	0.08	30	2200	6.3X5.2
				20	2690	6.3X7
	100	150	0.08	30	2200	6.3X5.2
				20	2690	6.3X7
150	150	0.08	20	2690	6.3X5.2 / 6.3X7	
180	150	0.08	20	2690	6.3X7	
220	150	0.08	20	2690	5X11 / 6.3X7	
270	150	0.08	15	3500	6.3X11	
330	150	0.08	15	3500	6.3X11	
16	10	150	0.08	30	2200	6.3X5.2
				25	2610	6.3X7
	15	150	0.08	30	2200	6.3X5.2
				25	2610	6.3X7
	22	150	0.08	30	2200	6.3X5.2
				25	2610	6.3X7
	33	150	0.08	30	2200	6.3X5.2
				25	2610	6.3X7
	47	150	0.08	30	2200	6.3X5.2
				25	2610	6.3X7
	68	150	0.08	30	2200	6.3X5.2
				20	2690	6.3X7
82	150	0.08	20	2690	6.3X7	
100	150	0.08	20	2690	6.3X7	
220	150	0.08	20	2690	6.3X7	
			15	3500	6.3X11	
220	150	0.08	15	3500	6.3X11	

SL Series

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w.v (V)	Capacitance (μF)	LC. ($\mu\text{A}, 2\text{min}$)	$\text{tg}\delta$ (120Hz, 20 $^{\circ}\text{C}$)	ESR ($\text{m}\Omega, 100\text{KHz}$)	Maximum Permissible Current(mA, rms)	Size $\Phi \times \text{DL}(\text{mm})$
20	10	150	0.08	30	2200	6.3X5.2
				25	2670	6.3X7
	15	150	0.08	30	2200	6.3X5.2
				25	2670	6.3X7
	22	150	0.08	30	2200	6.3X5.2
				25	2670	6.3X7
	33	150	0.08	25	2670	6.3X7
	39	150	0.08	25	2670	6.3X7
47	150	0.08	25	2670	6.3X7	
68	150	0.08	20	2900	6.3X11	
25	10	150	0.08	30	2200	6.3X5.2
				25	2670	6.3X7
	15	150	0.08	25	2200 / 2670	6.3X5.2 / 6.3X7
	22	150	0.08	25	2670	6.3X7
	33	150	0.08	25	2670	6.3X7
	39	150	0.08	25	2670	6.3X7
47	150	0.08	20	4900	6.3X11	