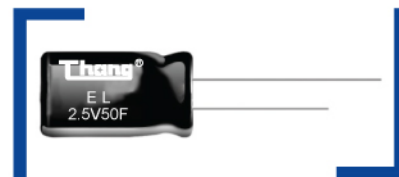


EL 能量型超级电容器

EL high energy SuperCapacitors

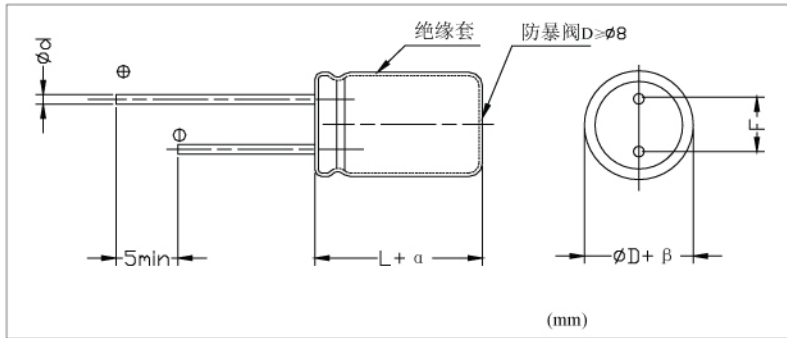


- ◎ 产品直径 Case diameter: : Φ 8mm – Φ 22mm, 产品容量 capacitance: 0.5 ~ 100F.
- ◎ 更高温度长寿命。Higher temperature and long life time.
- ◎ 适用于消费电子更环保要求场合。
Available for consumer electronics and more environmental protection requirements.
- ◎ RoHS指令已对应完毕。Adapted to the RoHS directive.

■ 主要技术性能 Specifications

项目 Items	特性 Characteristics	
工作温度范围 Operating Temperature Range	-25°C ~ +70°C	
储存温度范围 Storage Temperature Range	-25 ~ +70°C	
额定电压范围 Rated Voltage Range	2.5V	
标称电容量范围 Nominal Capacitance Range	0.5 ~ 100 F	
标称电容量允许偏差 Nominal Capacitance Tolerance	± 20% (25°C, 恒流充放电)	
漏电流 Leakage Current	$I \leq 0.5C_R$ (mA), (30min) C_R : 标称电容量 (F) U_R : 额定电压 (V) $I \leq 0.5C_R$ (mA) (at 25°C, after 30 minutes) C_R : Nominal Capacitance (F) U_R : Rated voltages (V)	
耐久性 Load Life	+70°C施加额定电压1000小时后, 电容器应满足以下要求: After 1000 hours' application of rated voltage at 70°C, the capacitor shall meet the following requirement:	
	电容量变化率 Capacitance Change	$\leq 30\%$ 初始值 No more than 30% capacitance range of the initial value
	等效串联内阻 ESR(1KHz)	$\leq 300\%$ 初始规定值 Not more than 300% of the initial specified ESR value
	漏电流 Leakage Current	\leq 初始规定值 Not more than the initial specified value
高温贮存 Shelf Life	+70°C贮存1000小时后, 电容器应满足以上耐久性要求: After storage for 1000 hours at +70°C, the capacitors shall meet the requirement of load life above:	
循环寿命 Cycles life	在25°C的条件下, 电容器在额定电压和一半额定电压之间恒流充放电循环500000次, 电容器应满足以下要求: The capacitors shall be charged/discharged with constant current between the U_R and $1/2U_R$ maintained at 25°C for 500000cycles. After removing the current at room temperature, they meet the following requirement:	
	电容量变化率 Capacitance Change	$\pm 30\%$ 初始值以内 Within $\pm 30\%$ of the initial value
	等效串联内阻 ESR	≤ 3 倍初始规定值 Not more than three times of the initial specified value
	漏电流 Leakage Current	\leq 初始规定值 Not more than the initial specified value

■ 外形图及尺寸表 Case size table



D	8	10	12.5	16-18	22
F	3.5	5.0		7.5	10
d	0.5、0.6	0.6		0.8	

α MAX	(L < 20) 1.5
	(L ≥ 20) 2.0

β MAX	(D < 20) 0.5
	(D ≥ 20) 1.0

■ 尺寸 Dimensions

容量 C _R (F)	电压U _R	2.5V					
	DxL	DXL mm	ESR mΩ 1KHz	Lc mA 30min	DXL mm	ESR mΩ 1KHz	Lc mA 30min
0.5		8 × 12	1200	0.25			
1					8 × 12	500	0.5
2		10 × 16	400	1	8 × 20	400	1
4.7		12 × 20	200	2.3	10 × 20	200	2.3
10		10 × 30	100	5	12.5 × 25	100	5
15		12.5 × 30	80	7.5			
22		16 × 30	70	11			
30					18 × 30	60	15
50		18 × 40	40	25			
70					18 × 45	35	35
90		22 × 45	30	45			
100					22 × 45	25	50