SEMTKE
ELECTRONIC COMPANY LIMITED

SZ3R0R348L29MB
3.0V 3400F

超级电容器
Electrical Double Layer Capacitor

产品特性 Features — Data Sheet

- 比能量大
- 高功率
- 寿命长
- 安全可靠
- 环境友好
- 免维护
- 充放电速度可达秒级

- High energy density
- High power density
- Long cycle life
- Safe and reliable
- Environment-friendly
- Maintenance-free
- Charge-discharge speed at the scale of second

应用领域 Applications

- 储能系统
- 混合动力汽车
- 重型机械
- 风力变桨
- 自动化设备
- 轨道交通
- 内燃机启动系统
- 新能源汽车
- 大型UPS

- Energy storage system
- HEV（hybrid electric vehicle）
- Heavy-duty machinery
- Variable wind power propellers
- Automation equipment
- Rail transit
- Starting system for internal combustion engine
- New energy vehicle
- UPS（Uninterruptible Power Supply）system

超级电容器是长寿命和高功率应用的首选技术，因为与电池相比，它们的使用寿命长、维护要求低、在寒冷天气下性能优越。

Ultracapacitors are the technology of choice for long life and high power applications because of their long operating lifetime, low maintenance requirements, and superior cold weather performance compared to batteries.

性能参数 Parameters

电气性能 Electrical Performance		
容量 Capacitance	额定容量， Rated Capacitance, F	3400
	容量偏差， Capacitance Tolerance, %	0% ~ +20%
电压 Voltage	额定电压， Rated Voltage, V.DC	3.0
	浪涌电压， Surge Voltage, V.DC	3.15
内阻 Internal Resistance	DC/ mΩ@25℃	0.23
	AC 1kHz/mΩ@25℃	/
电流 Current	72 小时泄漏电流， 72-hour Leakage Current, mA	12
	最大持续电流Maximum Continuous Current (ΔT= 15℃)， A	143
	1s 最大峰值电流， 1s Maximum peak Current, A	2861
质量 Mass	典型质量， Typical mass, g	525
能量 Energy	最大存储能量， Maximum stored Energy, Wh	4.25
	能量密度， Energy Density, Wh/kg	8.1
功率密度 Power Density	功率密度， Power Density, kW/kg	8.94
温度 Temperature		
温度区间 Temperature Range	工作温度范围， Temperature for Operation, ℃	-40 ~ +65
	存储温度范围， Temperature for Storage,℃	-40 ~ +70

性能参数 Parameters

寿命 Life		
使用期限 Life Time	额定电压下工作 10 年 After 10 years at rated voltage(25℃)	
	容量变化（初始值衰减） Capacitance change (decrease from rated value)	≤ 20%
	内阻变化（初始值增大） Internal Resistance (increase from rated value)	≤ 2 倍 (times)
耐久性 Endurance	额定电压下工作 1500 小时 After 1500 hours at rated voltage (65℃)	
	容量变化（初始值衰减） Capacitance change (decrease from rated value)	≤ 20%
	内阻变化（初始值增大） Internal Resistance (increase from rated value)	≤ 2倍 (times)
保存期限 Shelf Life	4 年（ 25℃ , 未充电）4 years (25℃, uncharged)	
循环寿命 Cycle Life	25℃恒定电流， 额定电压到 1/2 额定电压之间循环 100 万次 Constant current at 25 ℃,1,000,000 cycles between rated and 1/2 rated voltages	
	容量变化（初始值衰减） Capacitance Change (decrease from rated value)	≤ 20%
	内阻变化（初始值增大） Internal Resistance (increase from rated value)	≤ 2 倍 (times)

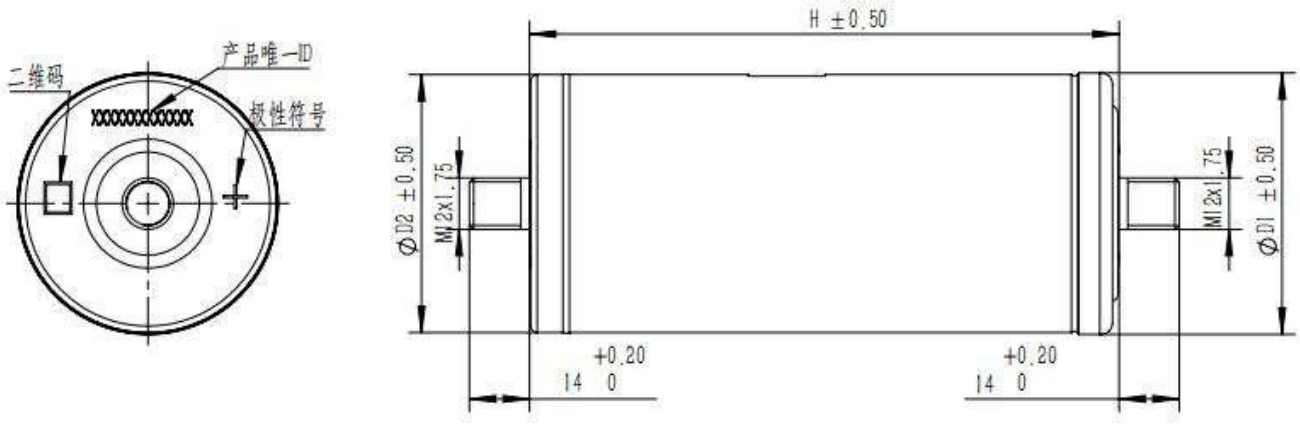
标准测试条件 Test Conditions

- 环境温度 Ambient temperature： 15℃ ~ 35℃
- 湿度 Humidity： 25%RH～75%RH
- 气压 Pressure： 86kPa~106kPa

*电容量、 内阻和漏电流尤其受温度的影响很大，如对结果有疑问，应按以下条件进行测量:
The capacitance, internal resistance and leakage current are particularly affected by temperature. If in doubt about results, make measurements under the following conditions:

- 环境温度 Ambient temperature： 20℃ ±2℃
- 湿度 Humidity： 63%RH ～67%RH
- 气压 Pressure： 86kPa~106kPa

外形尺寸 (单位：mm) Dimensions (Units : mm)



外径D1 Outer diameter D1	外径D2 Outer diameter D2	高度H Height
60.5	60	138

注意事项 Cautions

下述注意事项需严格遵守。对于没有按照以下注意事项所造成的任何意外事故，晟驰易电子有限公司不负担任何责任。

The warnings should be followed seriously,otherwise SEMTKE ELECTRONIC COMPANY LIMITED is not responsible for any loss caused by misconduct.

- 超级电容器应在额定电压和规定工作温度区间使用，不宜超过65℃，并远离超过工作温度区间 的热源；
- 超级电容器在使用前需确认正/负极，禁止反向充电。若正负极接反，会降低超级电容器的充放电性能，并会导致发热、泄露和使用寿命快速衰减。
- 超级电容器在使用前用干布对正/负极端子进行清洁，避免接触电阻过大降低超级电容使用性能。
- 禁止将超级电容器投入火中或进行高压加热。
- 禁止将超级电容直接与水、油、酸或碱接触。
- 禁止挤压、钉刺和拆解超级电容器。
- 禁止将带有 0.5V 以上电压的超级电容器进行正/负极短接；
- 在使用或储存期间如发现超级电容器有散发气味、变色、变形或其它反常之处应停止使用。
- 超级电容器所使用的电解液极易挥发，请不要随意分解超级电容器。
- 超级电容器不能随意丢弃，需请根据国家环保标准进行处理。

- The capacitor should be used in the rated voltage and specified operating temperature range with no more than 65 ℃, and stay away from heat sources that exceed the operating temperature range;
- The positive/negative electrodes of the capacitor must be confirmed before use, and reverse charging is prohibited. The reverse connection will reduce the performances of the capacitor and cause heat cause heat generation, leakage and rapid deterioration of service life;
- Clean the positive/negative terminals with a dry cloth before use to avoid excessive
- contact resistance, which would degrade the performances of the capacitor;
- Do not put the capacitor into fire or heat it under high pressure;
- Do not contact directly the capacitor with water, oil, acid or alkali ;
- Do not squeeze, prick and disassemble the capacitor;
- Do not short-circuit the positive/negative electrodes of the capacitor with voltages above 0.5V;
- Stop using the capacitor if it is found to emit odor, discoloration, deformation or other abnormalities during use or storage;
- Do not disassemble the capacitor at will because the electrolyte is volatile;
- Do not discard the capacitor at will, Please dispose of it according to national environmental protection standards.