



## PRODUCT SPECIFICATION

### 产品规格书

DOC NO (文件号) : GP-SRM-5R5505Q1

REV (版本) : R1.0

Page (页码) : 1 of 6

## Specification Approval Sheet

### 客户承认书

Dear customers,尊敬的客户

Please confirm the specification approval of Jianghai Supercapacitor in DOC No. GP-SRM-5R5505Q1 and REV. R1.0. 请确认江海超级电容器产品规格书, 文件号 GP-SRM-5R5505Q1 及版本号 R1.0

Customer Approval	Signature(签字):	Date(日期):
	Company Name(公司名称):	
	Company Stamp(公司盖章):	

南通江海电容器股份有限公司

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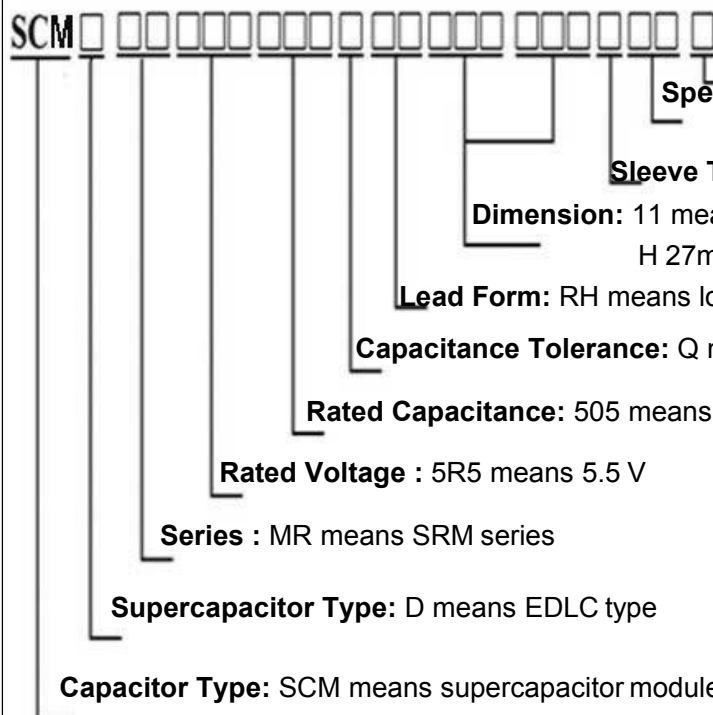
## 1. General Characteristics/一般特性

No.	Items/项目	Criteria/参数值	Remark/备注
01	Operating Temperature Range 工作温度范围	-40~+65 °C	
02	Rated Voltage 额定工作电压	5.5 V	
03	Rated Capacitance 额定容量	5 F	
04	Capacitance Tolerance 容差范围	-10~+30%	
05	ESR <sub>AC</sub> 交流内阻	80 mΩ	1KHz
06	Leakage Current 漏电流	0.030 mA	72hrs
		1.6 mA	30min
07	Storage temperature Range 存储温度范围	-40~+70 °C	
08	Cycle Life 循环寿命	>500,000 cycles	

## 2. Environmental Characteristics/环境特性

No.	Items/项目	Specification/Condition/规格/条件
01	Temperature Characteristics 温度特性	$ \Delta C/C  \leq 10\%$ , ESR $\leq$ specified ESR at +65°C +65°C, 容量变化: 初始值的 10%以内, ESR: 不超过规定值 $ \Delta C/C  \leq 30\%$ , ESR $\leq 2$ times of specified ESR at -40°C -40°C, 容量变化: 初始值的 30%以内, ESR: 不超过 2 倍规定值
02	High temperature loaded 高温负荷	$ \Delta C/C  \leq 30\%$ , ESR $\leq 2$ times of specified ESR at +65°C/ 1000hrs/Rated voltage +65°C, 额定电压下, 负荷 1000h, 容量变化: 初始值的 30%以内, ESR: 不超过 2 倍规定值
03	High temperature storage 高温存储	$ \Delta C/C  \leq 30\%$ , ESR $\leq 2$ times of specified ESR at +65°C/1000hrs +65°C, 高温存储 1000h, 容量变化: 初始值的 30%以内, ESR: 不超过 2 倍规定值
04	Humidity Resistance 稳态湿热	+40°C±2, 90--95%RH, 240h, $ \Delta C/C  \leq 30\%$ , ESR $\leq 2$ times of specified ESR +40°C±2, 90--95%RH, 高温高湿存储 240h, 容量变化: 初始值的 30%以内, ESR: 不超过 2 倍规定值

### 3. Jianghai P/N: 江海代码



**outgoing mode:** W means External leads

**Special Notes:** Defaulted without any note

**Sleeve Type:** E means PET

**Dimension:** 11 means W 11 mm, 21 means L 21 mm ,and 27 means H 27mm

**Lead Form:** RH means long lead wire

**Capacitance Tolerance:** Q means  $-10 \sim +30\%$

**Rated Capacitance:** 505 means 5 F

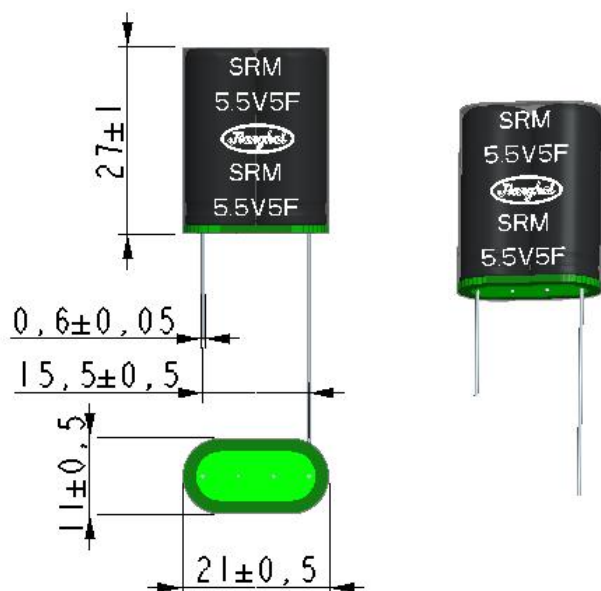
**Rated Voltage :** 5R5 means 5.5 V

**Series :** MR means SRM series

**Supercapacitor Type:** D means EDLC type

**Capacitor Type:** SCM means supercapacitor module

#### 4. Product Dimensions: 产品尺寸





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## 5. Handling Precautions and Guidelines

For safety application, please contact JIANGHAI directly for any technical specifications, handling precautions and guidelines critical to application.

### Precautions

#### (1) Prohibition of disassembly

The disassembling may generate internal short circuit in the cell, which may cause gassing, leakage, explosion, or other problems.

Electrolyte is harmful: In case the electrolyte comes into contact with the skin, or eyes, physicians shall flush the electrolyte immediately with fresh water and medical advice is to be sought.

#### (2) Prohibition of dumping of cells into fire

These may cause explosion of the cells, which is very dangerous and is prohibited.

#### (3) Prohibition of cells immersion into liquid

The cells shall never be soaked with liquids such as water, seawater, drinks such as juices, coffee or others.

#### (4) Prohibition of use of damaged cells

The cells might be damaged during shipping by shock. If any abnormal features of the cells are found such as damages in the cell package, smelling of an electrolyte, an electrolyte leakage and others, the cells shall never be used any more.

The Cells with a smell of the electrolyte or a leakage shall be placed away from fire to avoid firing or explosion.

### Handling Guidelines

#### (1) It is not suitable that cell is used under such conditions: AC circuit and wave filtering.

#### (2) Work voltage of cell should not exceed Max. work voltage of cell during using. Otherwise, will shorten shelf life, even cause swelling, leakage or crack..

#### (3) Please check the polarity before using. If working under reverse polarity, cell will not only shorten shelf life, but also heavy damage, such as swelling, electrolyte leakage etc.

#### (4) ) Environment

Work temperature will have an influence on shelf life of cell. As usual, higher work temperature will shorten shelf life. So, it is better that cell works under as possible as low environmental temperature.

Work temperature of cell should consider internal work temperature in the unit and temperature rise when cell works.

#### (5) IR drop

When main power sources shut down, cell will change into work mode from failure mode, at the same time, OCV will decrease due to IR drop. So please choose proper product type according to impedance specified in product datasheet and applied current.

#### (6) Cells in series connection

When cells in series connection for higher work voltage, it should be assured that work voltage of any single cell must not exceed Max. work voltage of single cell, otherwise, will shorten shelf life, even cause swelling, leakage or crack.

#### (7) Soldering

Heat shock will decrease electric performance of cell, even cause swelling, leakage or crack.

Soldering temperature should not exceed 260°C, soldering time should not exceed 5s.

Please don't use reflow soldering of infrared heating and air heating.



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### Customer Inquiry

Model: SCMDQR5R5505QRH112127E

Version: R1.0

The customer is requested to write down your information and contact JIANGHAI in advance, if and when the customer needs applications or operating conditions other than those described in this document. JIANGHAI could design and build such products according to your special request.

No.	Special Request	Criteria
1		
2		
3		
4		
5		

Company Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date : \_\_\_\_\_