



Shanghai Green Tech Co.,Ltd.

(GT Confidential)

1. SCOPE

This product specification has a regulation on product performance and test methods, can be a norm for technology confirmation.

2. General Specification

2.1 Application Scope:

The product can used as back-up power in electronic devices, such as RAM, intelligent meter, motor driver, clock circuit, electronic toys, etc.

2.2 Standard Test Conditions:

In general condition, test conducted under standard atmosphere pressure, temperature between 15°C~35°C and relative humidity 25%~75%. By this specification, the standard test condition is under standard atmosphere pressure, temperature at 25°C ± 2 and relative humidity below 60 ± 15%.

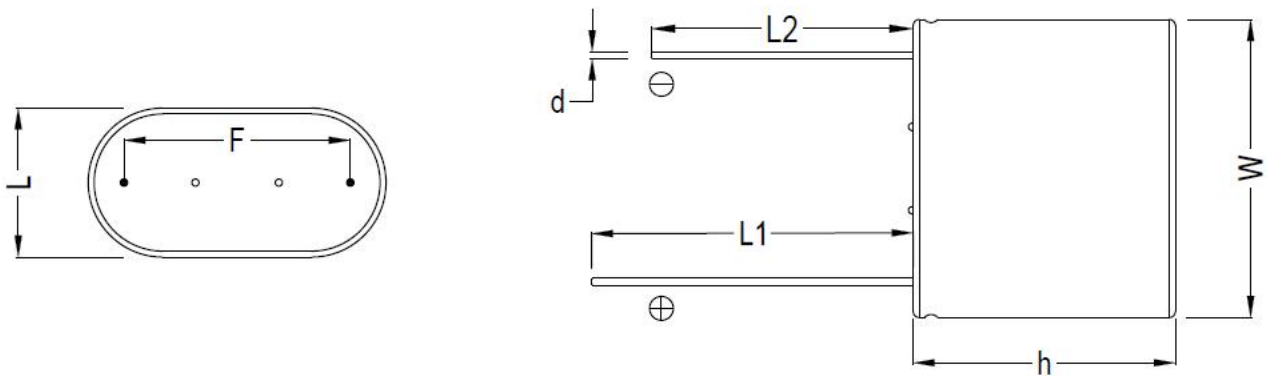
2.3 Executive Standard

IEC 62391-1 《Fixed electric double-layer capacitors for use in electronic equipment –Part 1:Generic specification》
Q/KMNY001-2009 "Electrochemical Capacitor"

3. Product Structure

The product is an Electrical Double-Layer Capacitor, with activated charcoal inside be positive and negative pole.electrodes separated by electrolyte and separator , stainless steel case, the two electrodes leaded out in the same side.

4. Product Dimension



Item	Standard	Item	Standard
W	16.5±0.5 mm	h	22.0±0.5 mm
L1	27.0±2.0 mm	L2	22.0±2.0mm
d	0.6±0.1mm	F	11.7±0.5mm
L	8.5±0.5 mm		



5. Specifications

Part Number	Rated Voltage	Capacitance	ESR/AC 1KHz	Leakage Current @RT. After 24hrs	Capacitance tolerance	Max. Peak Current (1s)	weight
	(V)	(F)	(mΩ)	(mA)	(%)	(A)	(g)
GTSM-5R5-155ZH	5.5	1.5	500	≤0.02	-20%~+80%	1.94	3.4±0.3

Item	Characteristics	Specification/Condition
Rated Voltage	5.5V	
Temperature characteristic	-40℃~+70℃	+70℃ ΔC/C ≤30% initial value (at 25℃) -25℃ ΔC/C ≤50% initial value(at 25℃)
Cycle Life	500,000 times	After 500,000 times of cycles between U ₀ -1/2U ₀ at 25℃ ΔC/C ≤30% initial value at 25℃ ESR≤4 times of specified value at25℃
High Temperature load characteristic	+70℃±2	+70℃±2 plus rated voltage. After 1000hrs ΔC/C ≤30% initial value ΔESR≤4 times of specified value
Humidity load characteristic	+40℃±2	After 240hrs at +40℃±2, 90--95% RH ΔC/C ≤30% initial value ESR≤4 times of specified value at

6. Handling Precautions and Guidelines

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

6.1 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 come 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.

6.2 Application Guidelines

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

(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 230℃, soldering time should not exceed 5s.

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