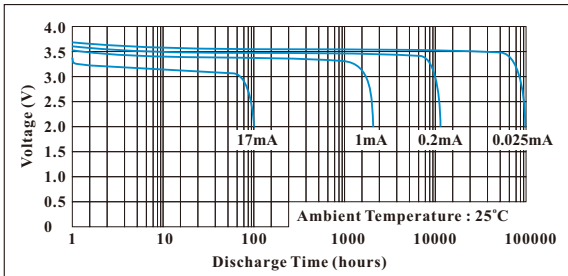


# LITHIUM THIONYL CHLORIDE BATTERY

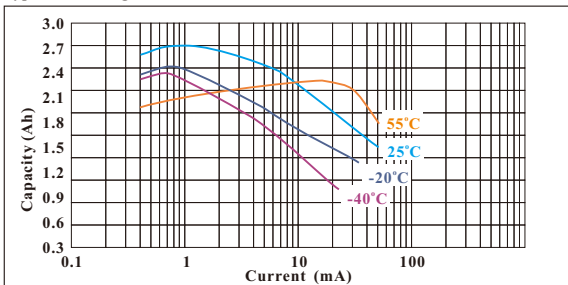
## SPECIFICATIONS

Model	: ER14505
Description	: Lithium Thionyl Chloride battery (LiSOCl <sub>2</sub> ), size AA, Bobbin Type
Nominal Capacity	: 2.7Ah (Min. 2.55) at 1mA discharge at 20°C to 2.0V
Nominal Voltage	: 3.6 V (Loaded voltage depends on ambient temperature and discharge current)
Cut-Off Voltage	: 2.0 V
Approx. Weight	: 18 g
Estimated Shelf-Life	: 10 years (for reference only, tested by storage at 60°C for 200 days)
Recommended Drain	: Standard : 1mA Continuous : Max. 50mA at 20°C (capacity around 50% of nominal) 0.1s Pulse : Max. 100mA at 20°C (conditions apply)
Operating Temperature	: -55°C to 85°C
Storage Temperature	: Max. 30°C
Service Life	: Typ. 2700hrs at 1mA continuous discharge at 20°C Typ. 100hrs at 17mA continuous discharge at 20°C
IQC Recommendations	: Other IQC standard must be mutually agreed. IQC Date : within 30 days after shipment of battery Open Circuit Voltage : voltmeter (Sampling S-4 AQL 0.65) Capacity : 1mA continuous discharge at 20±5°C
Warning	: Please take into consideration of passivation in product design process. For some equipments, de-passivation may be needed before usage. Do not recharge, over-discharge, short circuit, disassemble, direct soldering, put into fire, put into water, use inverse polarity, mix new and old battery. May cause explosion, burning, or leaking.

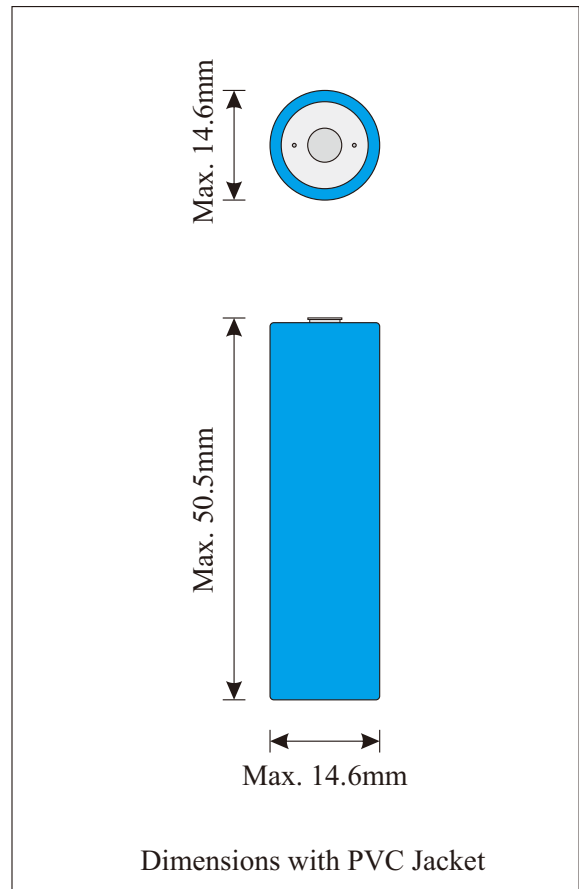
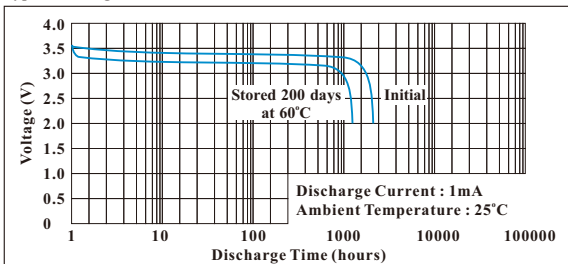
Typical Discharge Characteristics



Typical Discharge Characteristics



Typical Storage Characteristics



Information is for reference only and is not intended to make or imply any guarantee or warranty. Information is based on new battery. Battery performance varies with time, discharge and storage condition. Battery has 1 year limited guarantee against manufacturing defects. Other problem caused by misuse, mishandling of cell, or malfunction of equipment, is not under the warranty.

Model : ER14505  
Version : 3.02

**WELL LINK**  
INDUSTRIAL LIMITED

**G419F40**

# LITHIUM THIONYL CHLORIDE BATTERY

## PROPER USE AND HANDLING

This page is not intended to provide all the information that you will need to know to safely use the battery. Customer should employ appropriate cautions in order to obtain optimum performance and safety.

**Voltage Delay and Passivation :** When a battery is used for the first time after storage, the battery voltage will drop from open circuit voltage to a loading voltage which is a function of the discharge current and surrounding temperature. At low currents, the voltage will stabilize almost immediately. However, at higher currents, the voltage may drop below cut-off for a short time before recovering. This is due to the passivation. It is related to a protective layer that forms on the anode to slow down the chemical reactions and to lead to the excellent shelf life of the battery.

Long term storage may affect the high drain performance of the battery  
The level of passivation is a function of storage time, temperature and working current. It will usually grow with storage time and temperature.  
For some applications, depassivation may be needed before usage.

**Handling and Safety :**

- Do not mix new and used batteries
- Do not mix batteries of different sizes, brands and types.
- Do not recharge the batteries
- Do not reverse the polarity
- Do not over-discharge the battery
- Do not heat, incinerate or solder on the battery
- Do not puncture, crush or dismantle the battery
- Do not expose content to water
- Keep battery away from children
- Do not short circuit the battery. Control measures should be implemented throughout the workplace.
- Batteries should be stored in original packaging or by similar means before installation or after removal.
- Batteries should be handled by trained workers.
- Avoid dropping of the battery. Dropped battery should be treated as a potential hot cell and must be segregated from the batch.
- All inspection tools should be non-conductive.
- Batteries should be inspected for physical damage. After checked, they should be returned to their storage packaging.

**Storage :**

- Store batteries in a cool, dry and well-ventilated area. Storage temperature should be within the specified range in the specification
- Keep away from moisture, heat sources and open flames.
- Keep batteries in original packaging.
- Do not apply pressure that may deform the battery.
- Appropriate fire extinguishing means and personal protective equipment should be available.

**Installation :**

- Install only new batteries with the same size, type and date code.
- Make sure the polarities is correct in installation.
- Make sure the batteries is in physically good conditions

**Disposal :**

- Dispose the batteries in accordance with local regulations
- Secure terminals to prevent short-circuiting
- Cut open the circuit for parallel connections
- Package each battery in a manner that prevents shorting with the container or with other batteries
- Package leaking batteries in a manner that contains the leak and use appropriate handling equipments such as gloves, safety glasses, respirator, sealable plastic bags.

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