



XELLEX BATTERY (HK) LIMITED

XELLEX BATTERY & POWER SUPPLY TECH. CO., LTD.

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# ER14505M/SP

## TECHNICAL SPECIFICATIONS

DRAFTED BY: \_\_\_\_\_

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### CLIENT ADMITTED

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The Technical Specifications hereinafter is only applicable to the Lithium-thionyl Chloride ER14505M/SP type battery, which was provided by Xellex Battery Co., Ltd. All the practical technical data, which were used to describe Battery Performance involved in the Specifications are obtained from the relevant experiments to the products of Xellex. Rights reserved to take relevant rectifications or modifications to the structure and performance of the products without

**prior notice.**

## 1. Scope

The Specifications is solely applicable to the "Xellex" Lithium-thionyl Chloride (Li-SOCL<sub>2</sub>) Battery--- ER14505M/SP.

Reference size: AA

**Safe-Plus** PCB and PTC double protection Over discharge, short circuit, forced charge protection. High drain/high pulses application

## 2. Dimensions

Height: 51mm Max.

Width: 20mm Max.

## 3. Average Weight: Around 21g

## 4. Electrical Performance (Typical Values for cells stored for one year or less)

### 4.1. Nominal Capacity: 2.10Ah

(At 4.0mAh, +25 °C, 2.0V CDV. The Capacity restored by the cell varies according to current drain, temperature and Cut-off Discharge Voltage)

### 4.2. Nominal Voltage: 3.6V

### 4.3. Maximum Recommended Continuous Current: 400mA

(Higher currents possible, consult XELLEX)

### 4.4. Maximum Pulse Current Capability: 1500mA

**Pulse Capability** varies according to pulse characteristics (frequency duration), temperature, cell history (storage conditions prior to usage) and the application's acceptable minimum voltage)

### 4.5. Storage (recommended): 30 °C Max.

**(possible without leakage):** -55 °C ~ +100 °C

### 4.6. Operating Temperature Range: -55 °C ~ +85 °C

(Operation at temperature different from normal temperature may lead to reduced capacity and lower voltage readings at the initial period of Pulse Discharging)

## 5. Key Features

Fast Voltage Response

High Discharging Voltage

Stainless steel container

All-sided safety protection

Unique glass-to-metal hermetic sealing

Non flammable electrolyte

Low self-discharging rate (Less than 1% after 1 year's shelf time at 25 °C)

Underwriters Laboratories (UL) Component Recognition (File Number MH 28717)

## 6. Main Applications

Utility Metering

Military electronics

Alarms and security devices

Tracking systems


Automotive electronics

Professional electronics, etc.

**7. Marking** : The following markings will be printed, stamped or impressed on the body of the battery :

- ( 1 ) Designation : ER14505M/SP
- ( 2 ) Manufacturer's name, abbreviation or brand : XELLEEX
- ( 3 ) Nominal Voltage : 3.6V
- ( 4 ) Polarity : " + " , " - "
- ( 5 ) Warning: Battery may explode or leak if recharged or disposed of in fire.
- ( 6 ) Expiry Date(Guarantee Period) : The Date which show on the labels of the finished product is used to indicate the Quality Assurance Period before it is used.



- ( 7 ) Icon :  An Icon which indicates the battery can not be disposed of in the Rubbish Can.

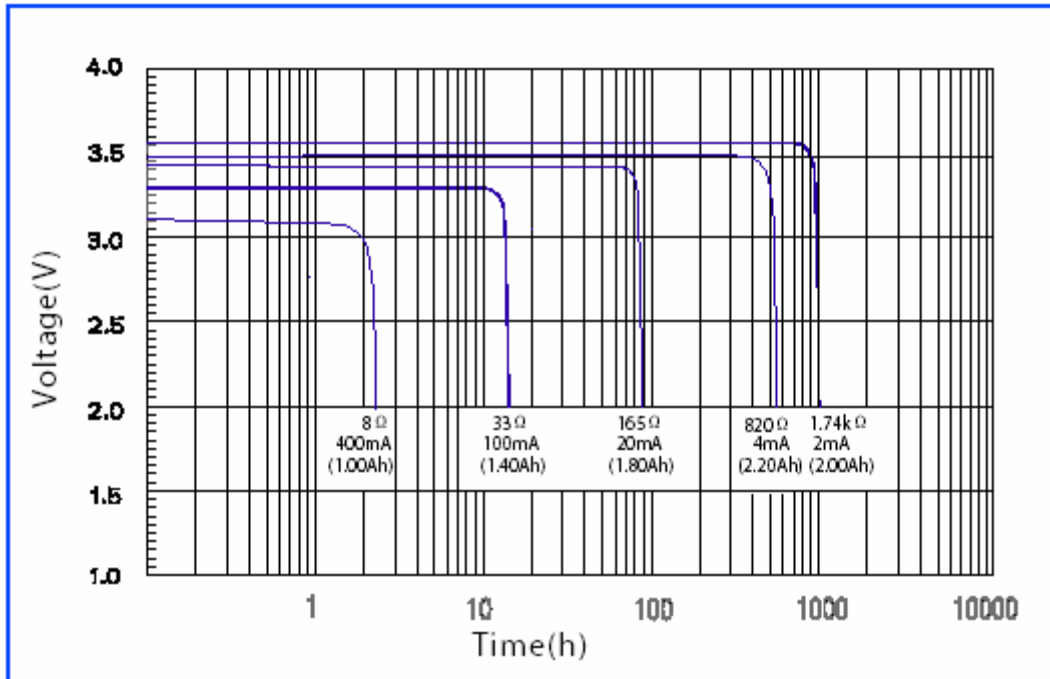
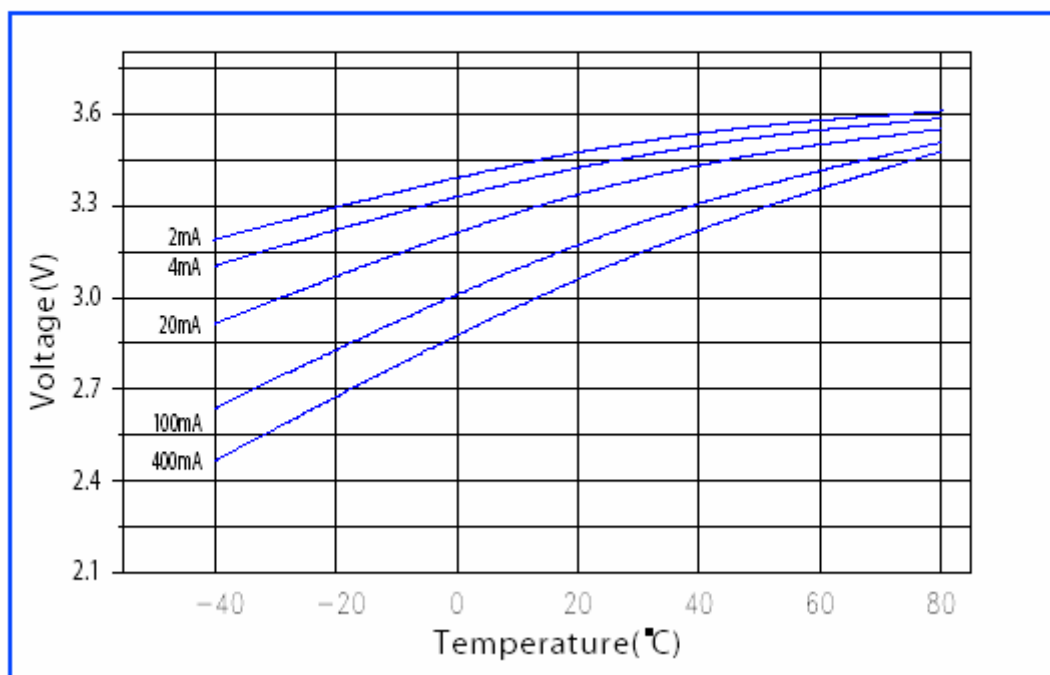
**8. Cautions For Use**

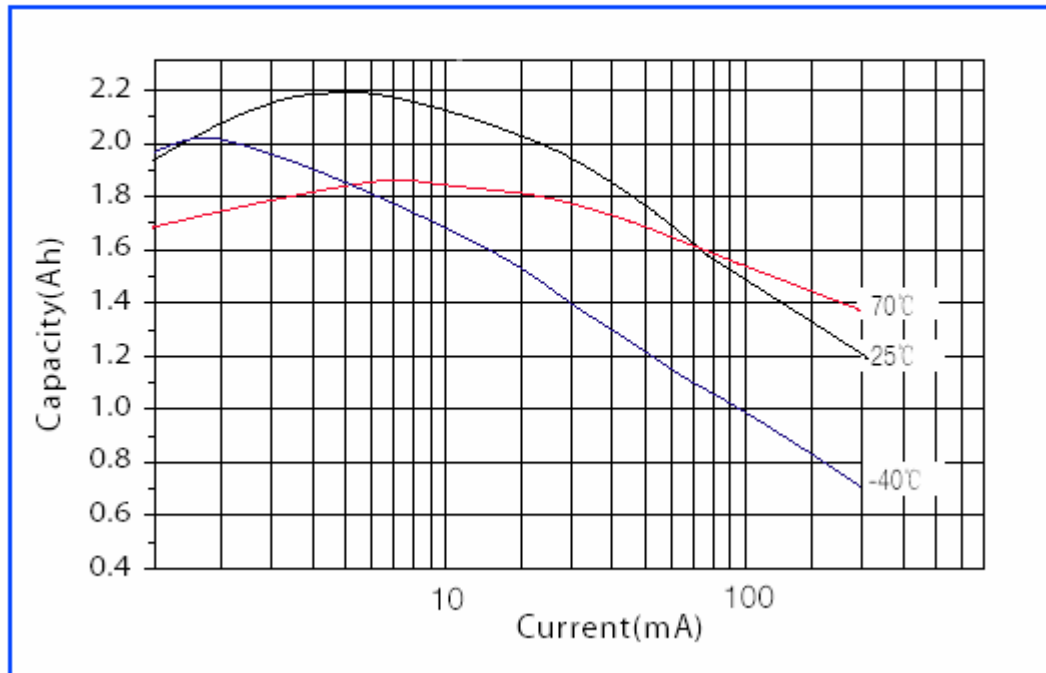
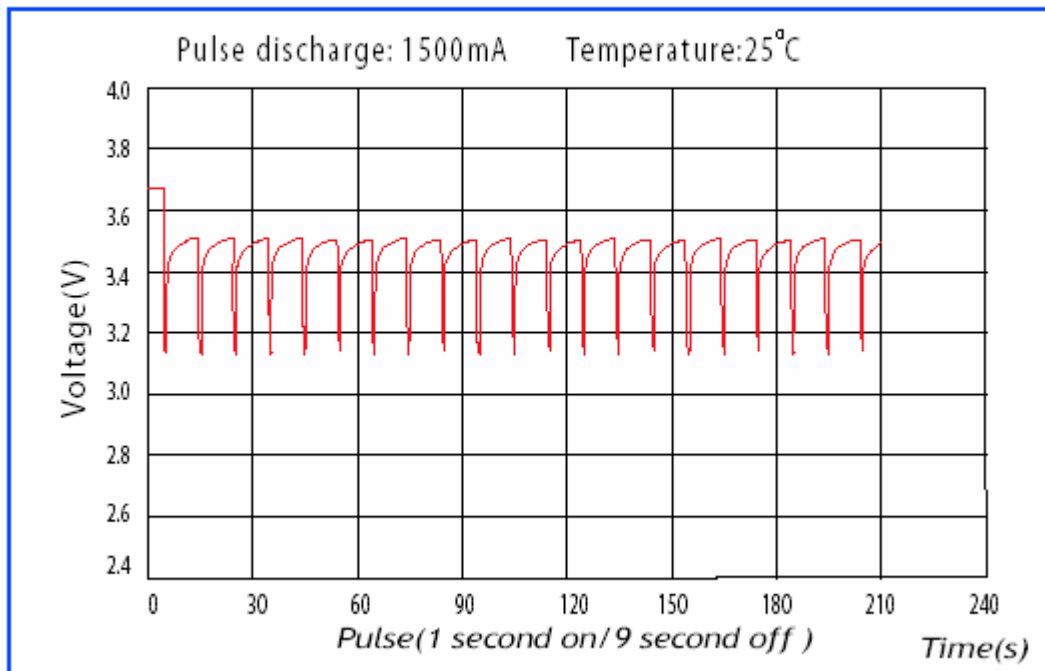
- ( 1 ) There are risks of leakage or explosion once the battery is recharged or crushed.
- ( 2 ) The battery shall be installed with its "+" and "-" in the right position.
- ( 3 ) Short-connecting, heating, disposing of into fire and disassembling the battery are prohibited, or it may causes explosion, burning and leakage of harmful material.

**9. Electrical Performance Curves:**

- (1) Service output (+25 ) (Figure 1)
- (2) Voltage VS. Temperature ( Figure 2 )
- (3) Capacity VS. Current ( Figure 3 )
- (4) Pulse Characteristics (Figure 4)

**10. Battery Dimensions** ( Figure 5 )

**Figure 1:****1. DISCHARGE CHARACTERISTICS @ +25°C****Figure 2:****2. VOLTAGE VS. TEMPERATURE**

**Figure 3:****3. CAPACITY VS. CURRENT****Figure 4:****4. PULSE DISCHARGE CHARACTERISTICS**

**Figure 5:**

