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**SENER** Brand Power Product[www.jlsener.com](http://www.jlsener.com)

Document Type : Specification  
Product Type : Lithium/Manganese Dioxide (LiMnO<sub>2</sub>) Coin Cell  
Ordering Code : SCR2430/726  
Cell Part Number : CR2430  
Cell UL Number : MH20926

A1 - New issue created by Ting Lok, Ngan on 26 Apr., 2010		
A2 - Updated section 4 & 6 by Holmes, Poon on 29 Apr., 2011		
A3 - Added packing requirements and updated section 4 by Ting Lok, Ngan on 19 May, 2014		
A4 - Updated section 3, 4 & 6 by Loki, Lo on 4 Dec., 2018		

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## 1. Purpose and Scope

This document contains both general requirements, qualification requirements, and those specific electrical, mechanical requirements for this part.

## 2. Description

Ø24.5mm Lithium/Manganese Dioxide (LiMnO<sub>2</sub>) coin cell high drain version, RoHS compliant.

## 3. Application

Computers and Peripherals, Portable Equipment, etc.

## 4. Component Requirement

### 4.1. General Requirement

4.1.1. Operating Temperature Range : -30°C to +65°C

4.1.2. Storage Temperature Range : 0°C to +30°C

4.1.3. Storage Humidity : 35 ~ 75%

4.1.4. Weight : Approx. 4.5g

4.1.5. Materials of Positive Terminal : SUS stainless

4.1.6. Materials of Negative Terminal : SUS stainless

### 4.2. Electrical Requirement

4.2.1. Nominal Voltage : 3V

4.2.2. Nominal Capacity : 300mAh  
(under Load 15KΩ Load and 2.0V End-voltage)

4.2.3. Load Resistance : 15KΩ

4.2.4. Standard Discharge Current : 0.2mA

4.2.5. Continuous Current (Max.) : 8mA

4.2.6. Pulse Current (Max.) : 30mA

4.3. Standard Characteristics

4.3.1. Discharge Characteristics

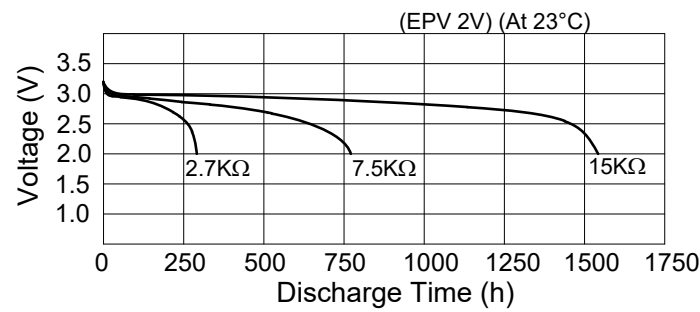


Figure 1. Discharge Characteristics

4.3.2. Load-Operating voltage

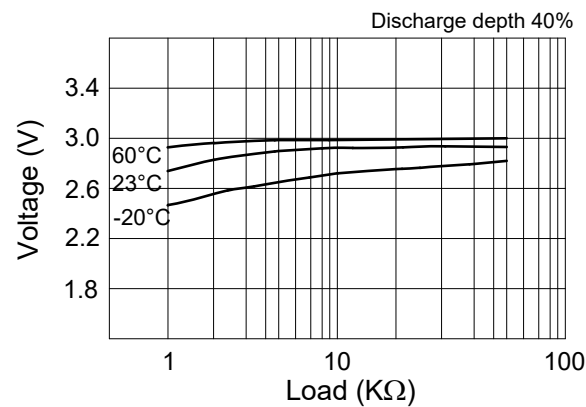


Figure 2. Load-Operating voltage

4.3.3. Pulse Discharge Characteristics

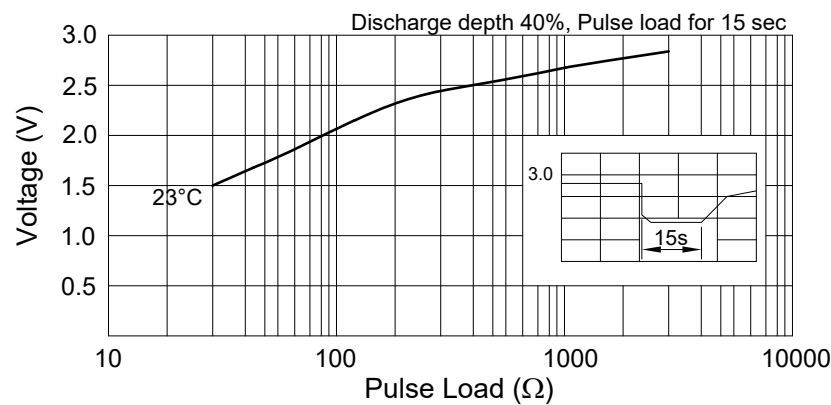


Figure 3. Pules Discharge Characteristics

4.3.4. Temperature Characteristics

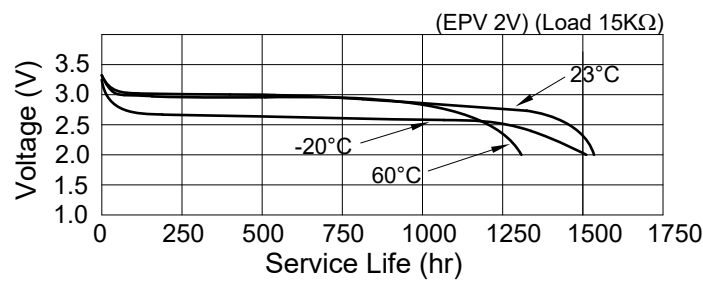


Figure 4. Temperature Characteristics

4.3.5. Load-Capacity

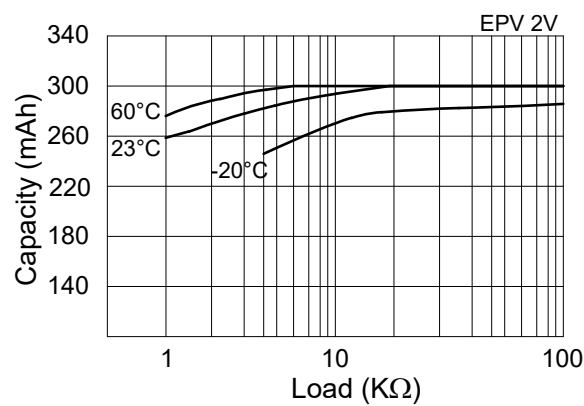


Figure 5. Load-Capacity

4.3.6. Storage Characteristics  
(Storage at 60°C for 30 days equivalent to storage at room temperature for 18 months)

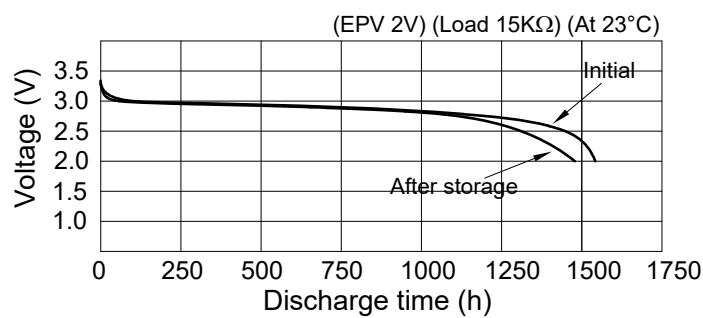


Figure 6. Storage Characteristics

## 5. Reliability Test

- 5.1. Open-circuit Voltage** : Subject samples to  $+20 \pm 2$  °C and  $0 \pm 2$  °C for 8 hours or longer. Then measure the voltage between both terminals at the same ambient temperature with voltmeter.
- 5.2. Closed-circuit Voltage** : Subject samples to  $+20 \pm 2$  °C and  $0 \pm 2$  °C for 8 hours or longer. Then measure the voltage between both terminals with voltmeter while the 15k $\Omega$  is connected between both terminals at the same ambient temperature. Measured value shall be based on meter reading taken 8 seconds after the circuit is closed.
- 5.3. Service Life** : Subject samples to  $20 \pm 2$  °C and  $0 \pm 2$  °C for 8 hours or longer. Then continuously discharge at the same ambient temperature and through 15k $\Omega$ . Discharge until terminal voltage of the test specimens falls below the discharge end-point voltage of 2.0V, and the time during which the terminal voltage is equal to and above the discharge end-point voltage shall be taken as the service life.
- 5.4. Service Life after high temperature storage** : Store samples at  $+60 \pm 2$  °C for 20 days. Then subject samples to  $+20 \pm 2$  °C and ordinary humidity 65%  $\pm$  20% for 12 hours or longer and continuously discharge through 15k $\Omega$ . Discharge until the voltage falls below the discharge end-point voltage of 2.0V, and the time during which the voltage is equal to and above the discharge end-point voltage shall be taken as the service life.
- 5.5. Electrolyte Leakage Test** : Samples shall be examined for electrolyte leakage while they are kept at ordinary temperature and humidity after being stored at  $45 \pm 2$  °C and 75% relative humidity for 30 days.
- 5.6. Self-discharge** : Store samples for 12 months at  $+20 \pm 2$  °C and 65%  $\pm$  5% relative humidity and tested for service life in accordance with the method specified in 5.3. Self-discharge shall be determined as follows:

$$\text{Self-discharge rate (\%)} = (Y1 - Y2) / Y1 \times 100\%$$

Y1 : Average initial discharge life of batteries of the same lot

Y2 : Average discharge life after storage

6. Mechanical Layout

Unit : mm  
Tolerance : Linear    XX.X    = ±0.3  
                             XX.XX   = ±0.05  
                             Angular   = ±0.25°  
(unless otherwise specified)

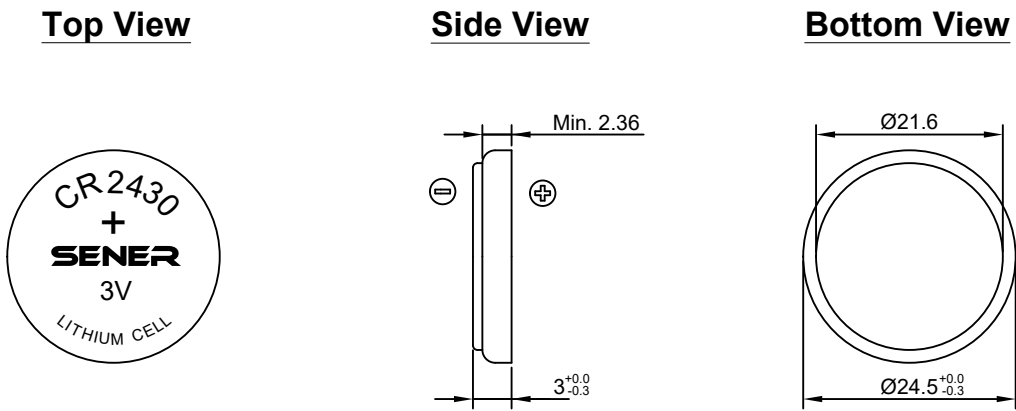
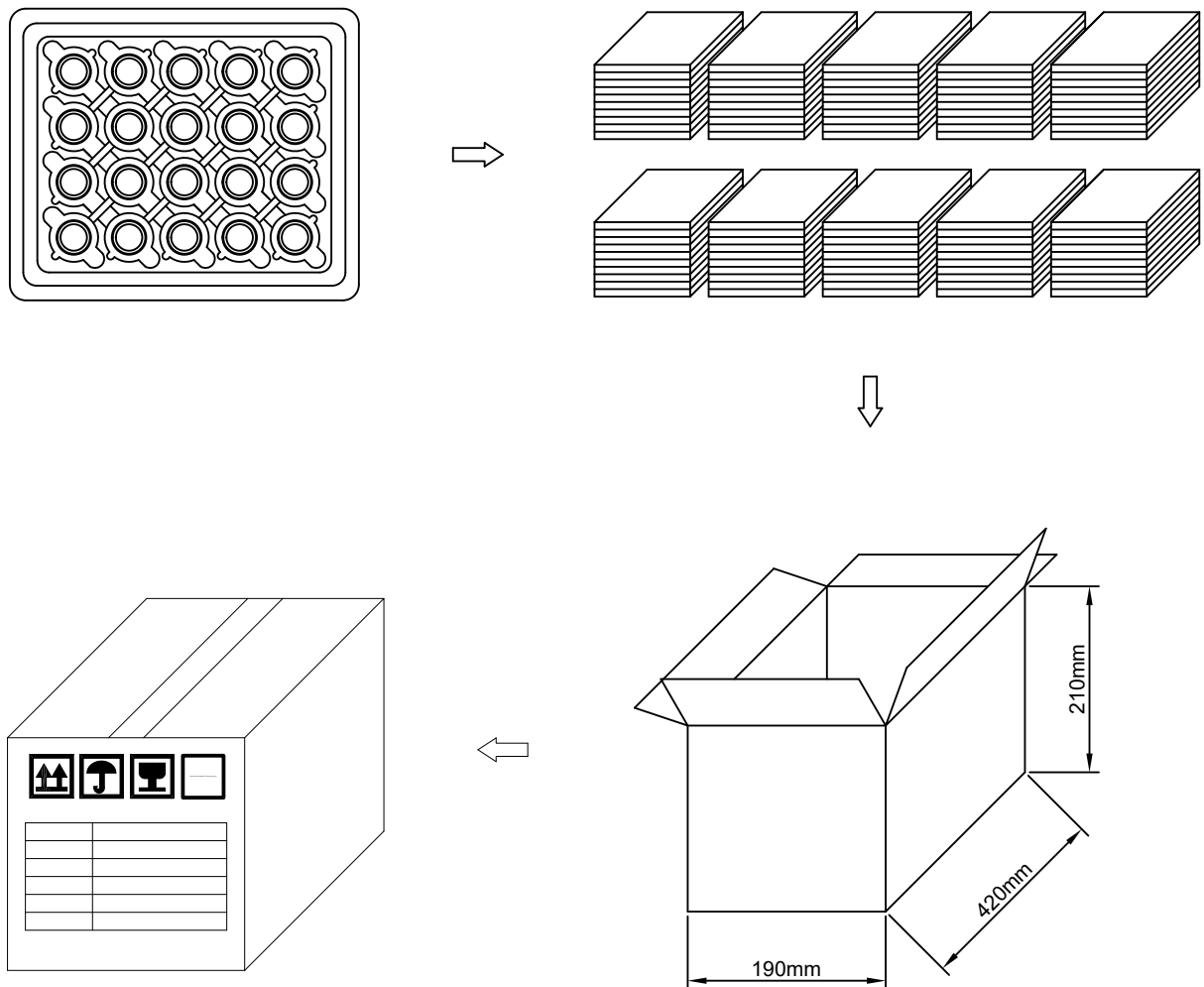


Figure 7. SCR2430/726 Mechanical Layout

## 7. Standard Packing Requirements

### 7.1. Ocean Shipment

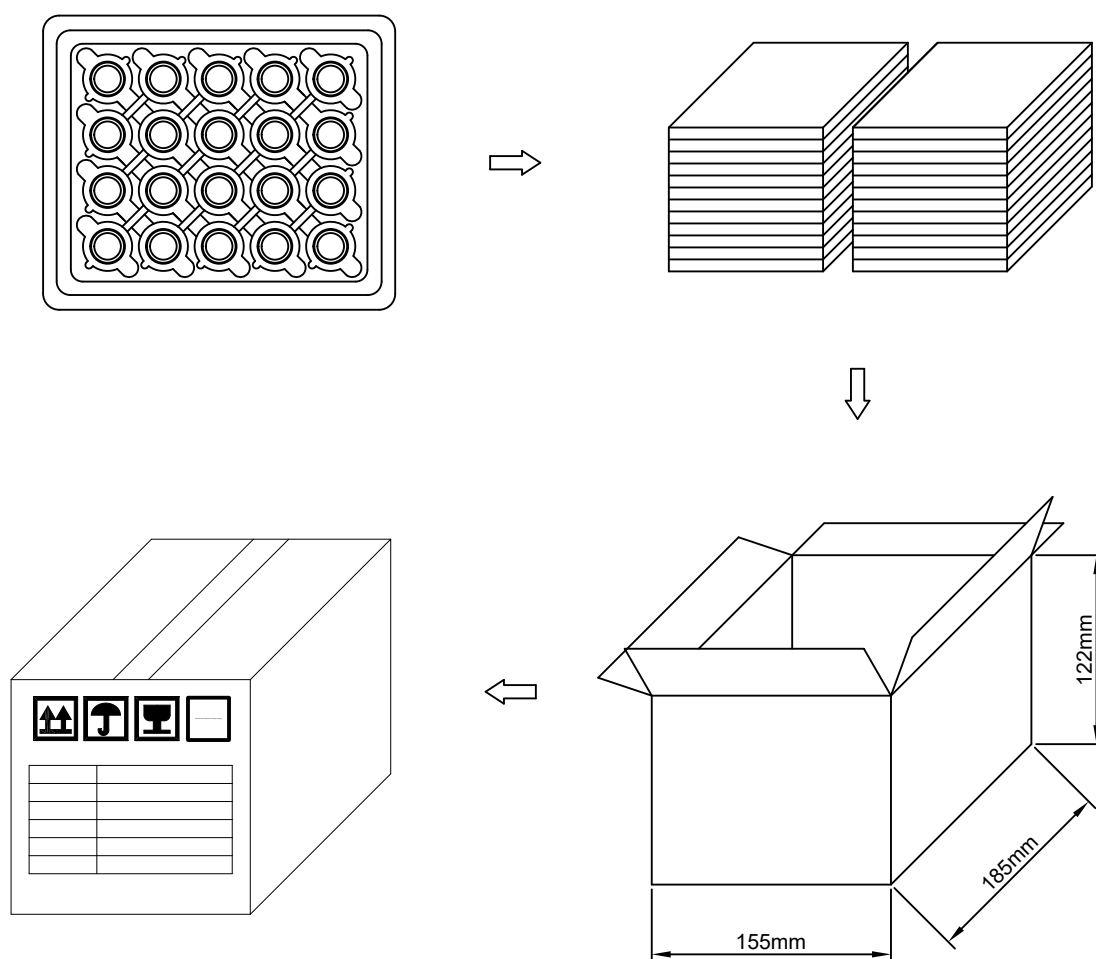
- 7.1.1.** Quantity : 20 pieces per tray, 10 trays per unit, 10 units per carton (total 2000 pieces)
- 7.1.2.** Net Weight : 9 Kg
- 7.1.3.** Gross Weight : 10.5 Kg
- 7.1.4.** Carton Dimensions : 420 (L) x 190 (W) x 210 (H)
- 7.1.5.** Tray and Carton Layout



**Figure 8. Tray and Carton Layout for Ocean Shipment**

## 7.2. Air Shipment

- 7.2.1.** Quantity : 20 pieces per tray, 12 trays per unit, 2 units per carton (total 480 pieces)
- 7.2.2.** Net Weight : 2 Kg
- 7.2.3.** Gross Weight : 2.4 Kg
- 7.2.4.** Carton Dimensions : 185 (L) x 155 (W) x 122 (H)
- 7.2.5.** Tray and Carton Layout



**Figure 9. Tray and Carton Layout for Air Shipment**