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**SENER** Brand Power Product

www.jlsener.com

Document Type : Specification  
 Product Type : Lithium/Manganese Dioxide (LiMnO<sub>2</sub>) Coin Cell  
 Ordering Code : SCR1632/726  
 Cell Part Number : CR1632  
 Cell UL Number : MH20926

A1 - New issue created by Loki, Lo on 1 Jun., 2016		
A2 - Updated section 4 by Ting Lok, Ngan on 25 Feb., 2019		

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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

Ø16mm Lithium/Manganese Dioxide (LiMnO<sub>2</sub>) coin cell high drain version,, RoHS compliant.

## 3. Application

Computers and Peripherals, Portable Equipment, DECT phone, 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 : 40 ~ 75%

4.1.4. Weight : Approx. 2g

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 : 140mAh  
(under Load 15kΩ Load and 2.0V End-voltage)

4.2.3. Load Resistance : 15KΩ

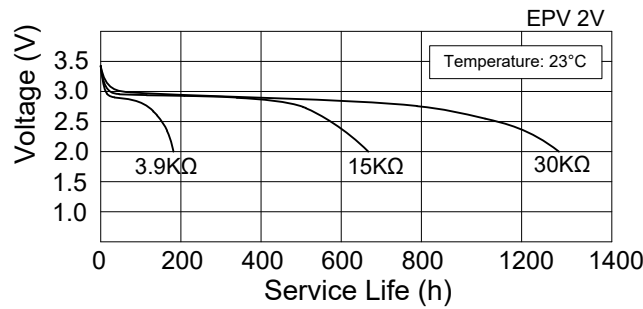
4.2.4. Standard discharge current : 0.1mA

4.2.5. Continuous Current : >=4mA

4.2.6. Pulse Current : >=10mA

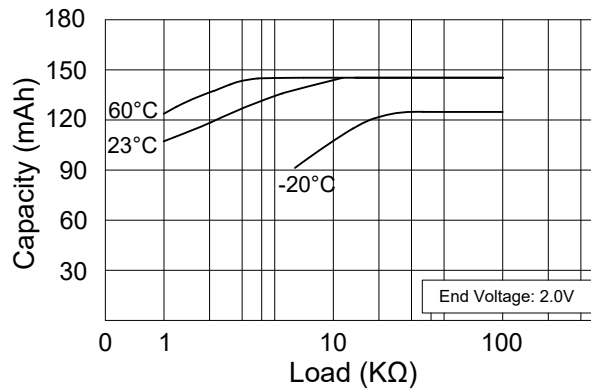
**4.3. Standard Characteristics**

**4.3.1. Discharge Characteristics**



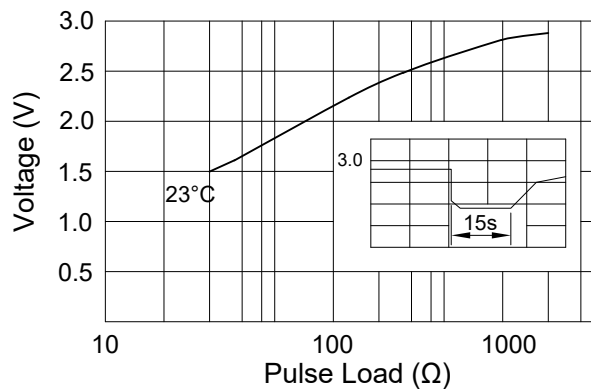
**Figure 1. Discharge Characteristics**

**4.3.2. Load-Capacity**



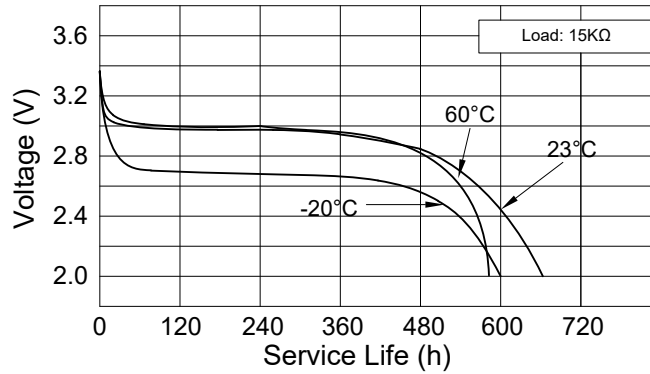
**Figure 2. Load-Capacity**

**4.3.3. Pulse Discharge Characteristics (Discharge depth 40%, pulse load for 15 sec)**



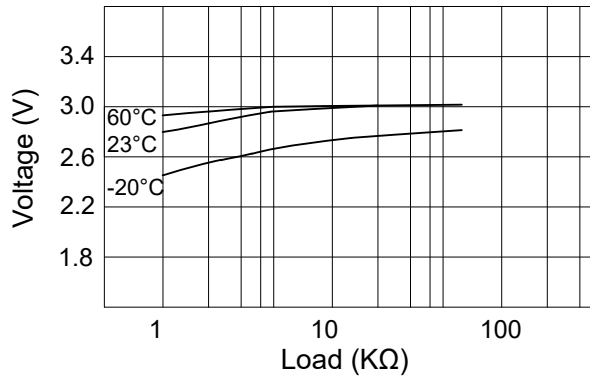
**Figure 3. Pules Discharge Characteristics**

**4.3.4. Temperature Characteristics**



**Figure 4. Temperature Characteristics**

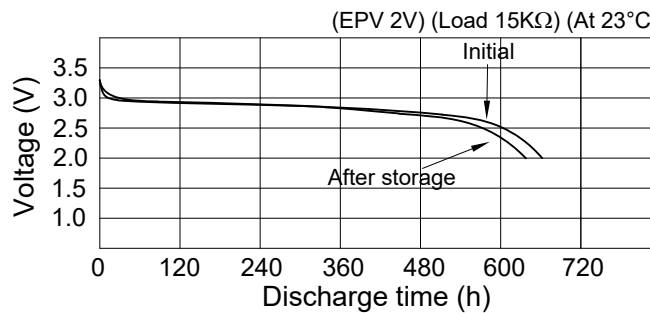
**4.3.5. Load-Operating voltage (Discharge depth 40%)**



**Figure 5. Load-Operating voltage**

**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. Testing

- 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

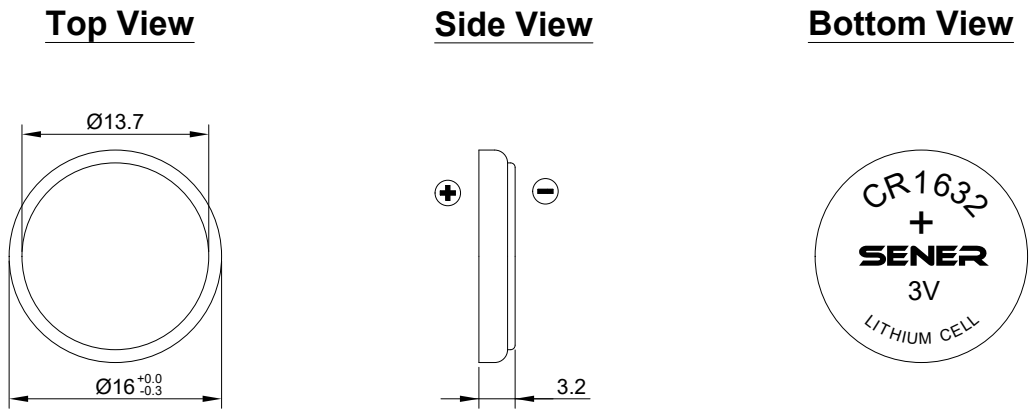
Y2 : Average discharge life after storage

**6. Mechanical Layout**

Unit : mm

Tolerance : Linear    XX.X        = ±0.3  
                               XX.XX      = ±0.05  
                               Angular      = ±0.25°

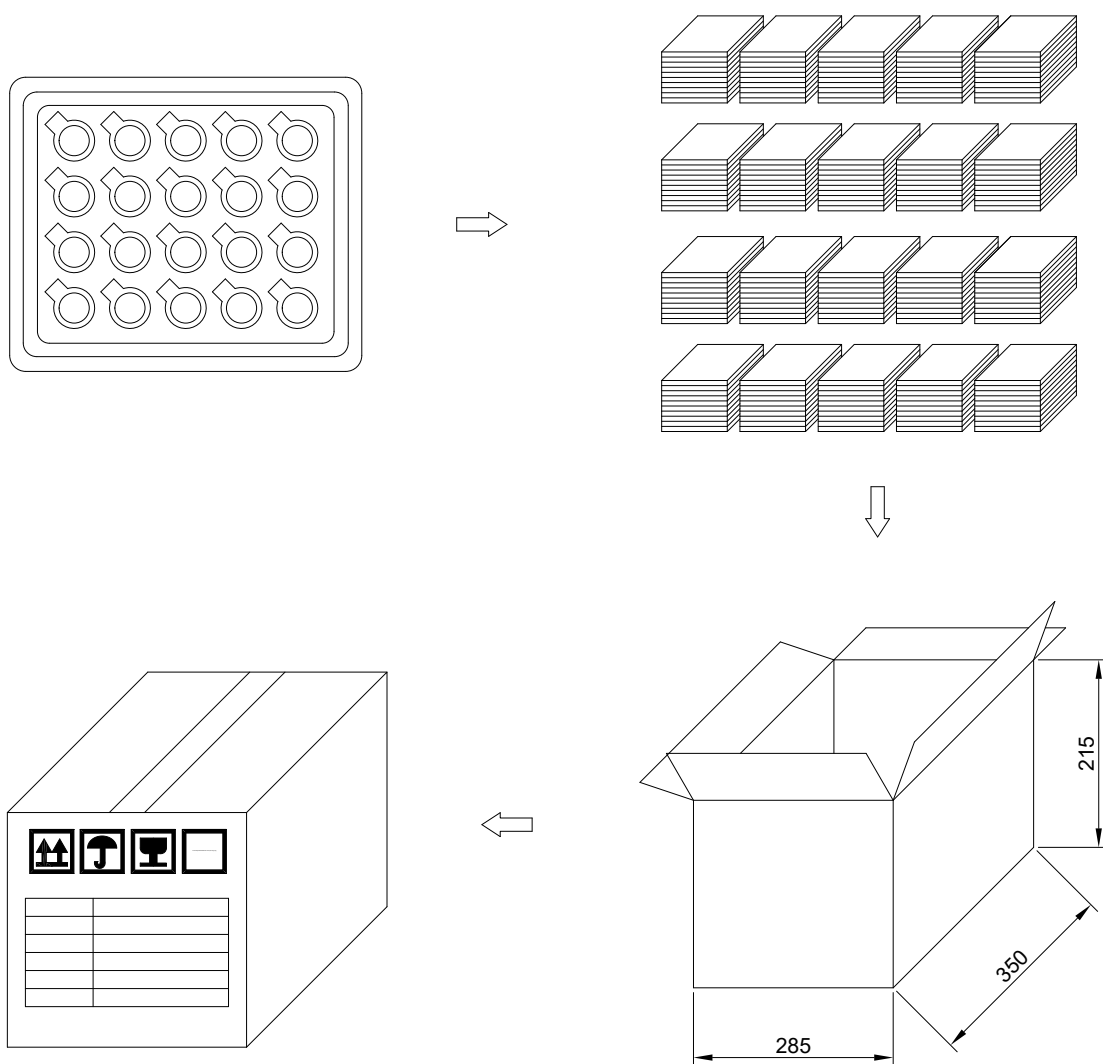
(unless otherwise specified)



**Figure 7. SCR1632/726 Mechanical Layout**

**7. Standard Packing Requirements**

- 7.1. Quantity** : 20 pieces per tray, 10 trays per unit, 20 units per carton (total 4000 pieces)
- 7.2. Net Weight** : 7.2 Kg
- 7.3. Gross Weight** : 9.5 Kg
- 7.4. Carton Dimensions** : 350 (L) x 285 (W) x 215 (H)
- 7.5. Tray and Carton Layout**



**Figure 8. Tray and Carton Layout**