# LITHIUM MANGANESE DIOXIDE BATTERY

#### **SPECIFICATIONS**

Model : CR123A

Description : Lithium manganese dioxide (Li/MnO2) battery, Low Temp. Type

Nominal Capacity : 1700mAh (Min. 1600mAh) at 20mA continuous discharge (new cell, temp. 20°C)

Nominal Voltage : >=3.0V (open circuit voltage, no load)

Cut-Off Voltage : 1.5V Weight : 17g

Max. Discharge Current : Max. 1500mA Continuous, 3000mA Pulse Estimate Self-Life : 10 years ex-factory (Conditions apply)

Operating Temperature : -40°C to 60°C (battery performance varies with temperature)

Storage Conditions :  $-20^{\circ}$ C to  $40^{\circ}$ C, RH  $65\pm15\%$  (within 3 months)

25±5°C, RH 50-70% (long term)

Safety Device : Built-in PTC

IQC Recommendations : Other IQC standard must be mutually agreed.

IQC Date: within 30 days after shipment of battery Outer Dimensions: with caliper (Sampling S-4 AQL 2.5)

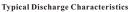
Appearance: visual (Sampling G-II AQL 2.5)

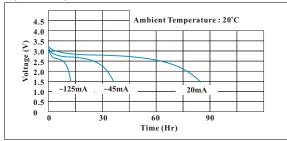
Open Circuit Voltage: voltmeter (Sampling S-4 AQL 0.65)

Capacity: 20mA continuous discharge at 20±5°C

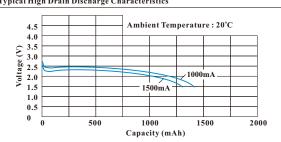
Service Life : Typ. 57hrs at 100 Ohm continuous discharge at 20°C, cutoff 1.5V

Typ. 41mins at 1.8A, 3s on/7s off at 20°C, cutoff 1.8V Typ. 940mins at 0.9A, 3s on/27s off at 20°C, cutoff 1.5V

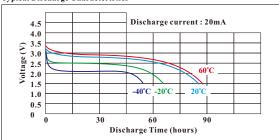




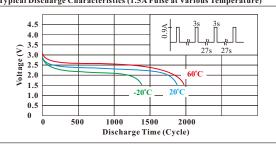
#### Typical High Drain Discharge Characteristics



#### Typical Discharge Characteristics



Typical Discharge Characteristics (1.5A Pulse at Various Temperature)



9.3+/-0.2mm

16.8+/-0.3mm

16.8+/-0.3mm

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: CR123A Version: 3.50

## LITHIUM MANGANESE DIOXIDE 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.

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, hear 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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