

## LITHIUM/MANGANESE DIOXIDE BATTERY



Size: PX2032

### KEY FEATURES

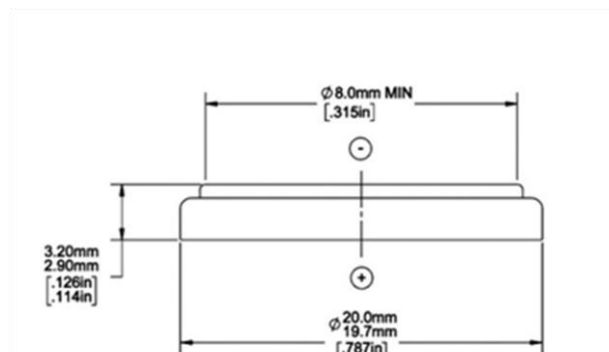
- High Cell Capacity & High Energy
- High voltage response, stable during most of the lifetime of the application
- Reliable Performance
- Child-Safe Markings
- Wide operating temperature range (-30°C/ + 70°C)
- Low self-discharge with long operating life (<1% after 1 year of storage at + 20 °C)
- Excellent resistance to corrosion
- Designed to meet all major quality, safety and environment standards:
  - Safety: IEC 60086-4
  - Transport: UN 38.3
  - EU Battery Regulation and EU REACH compliance
  - Quality: ISO 9001, Duracell World Class Continuous Program

### TYPICAL APPLICATIONS

- Medical devices
- Security Devices
- Wireless Sensors
- Fitness Devices
- Key-Fobs & Trackers
- Watches & Fitness Devices
- Fitness Devices

**PROCELL®**  
BY THE DURACELL® COMPANY

Procell Professional batteries  
Berkshire Corporate Park  
Phone: 1-800-544-5454 (Toll-free)  
[www.procell.com](http://www.procell.com)



Dimensions shown are IEC standards

### ELECTRICAL CHARACTERISTICS

- |   |         |
|---|---------|
| ▪ Nominal capacity (15k Ohm Cont., 2.0 V cut-off) | 260 mAh |
| ▪ Minimum Open Circuit Voltage (OCV)              | 3.0 V   |
| ▪ Standard Continuous Discharge Current           | 0.6 mA  |
| ▪ Maximum Continuous Discharge Current            | 3 mA    |
| ▪ Maximum Pulse Discharge Current at 1 sec        | 50 mA   |
| ▪ Nominal Energy                                  | 745 mWh |
| ▪ AC Impedance @ 1kHz                             | 9 Ohm   |

### PHYSICAL CHARACTERISTICS

- |                    |                  |
|--------------------|------------------|
| ▪ Typical weight   | 3.0 g (0.11 oz.) |
| ▪ Li metal content | approx. 0.08 g   |

### OPERATING & STORAGE CONDITIONS

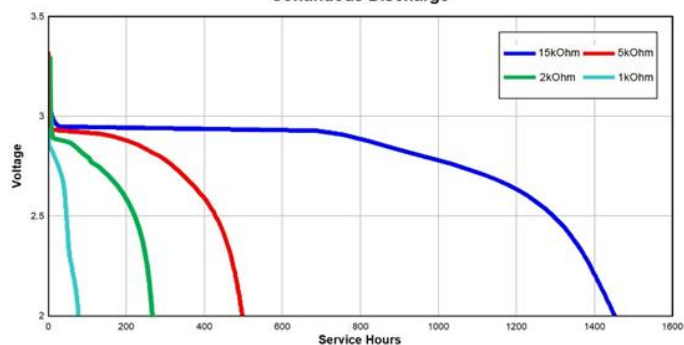
- |                               |   |
|-------------------------------|---|
| ▪ Operating temperature range | -30°C to 70°C<br>(-22°F to 158°F)   |
| ▪ Recommended Storage         | Storage area should be clean, cool<br>(preferably not exceeding +30°C), dry<br>and ventilated |
| ▪ Storage Humidity            | 5°C to 30°C<br>(41°F to 86°F)<br><70%   |

Delivered capacity is dependent on the applied load, operating temperature, and cut-off voltage. Please refer to the charts and discharge data shown for examples of the energy/service life that the battery will provide for various load conditions.

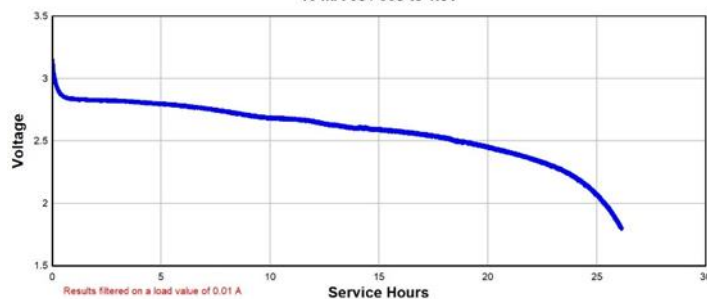
This data is subject to change. Performance information is typical. Contact Duracell for the latest information.

## TYPICAL PERFORMANCE

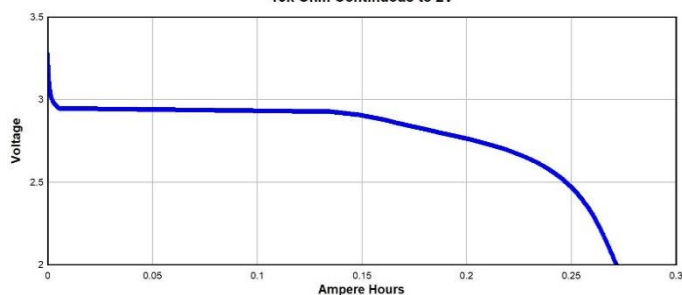
Continuous Discharge



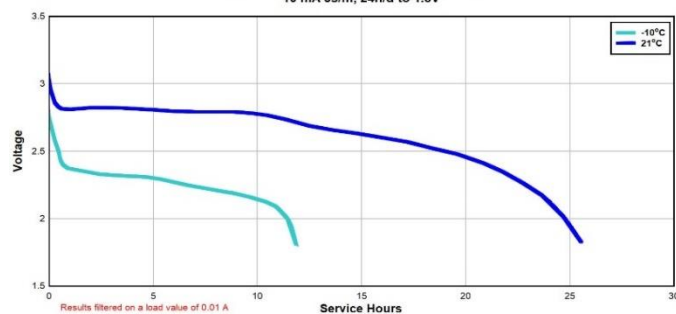
IEC Key Fob Test  
10 mA 5s / 55s to 1.8V



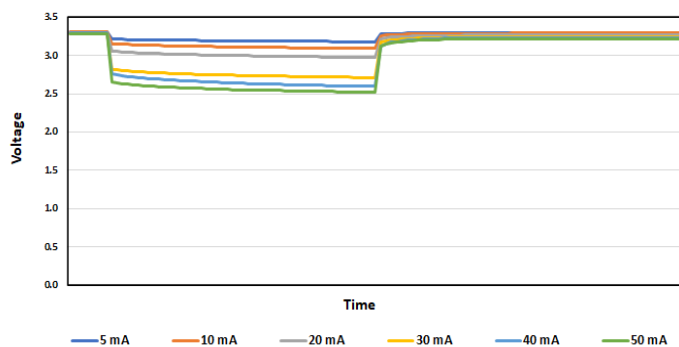
Rated Capacity  
15k Ohm Continuous to 2V



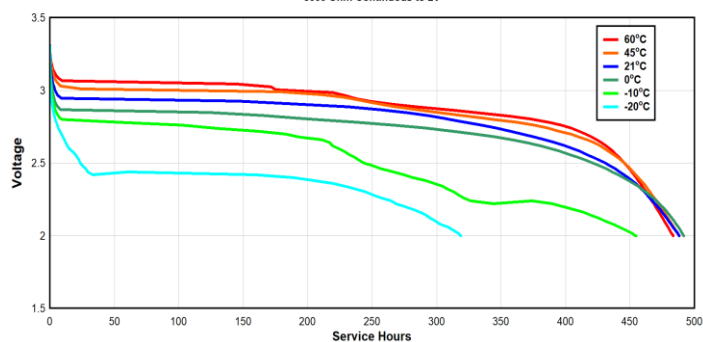
Temperature Performance - IEC Key Fob  
10 mA 5s/m, 24h/d to 1.8V



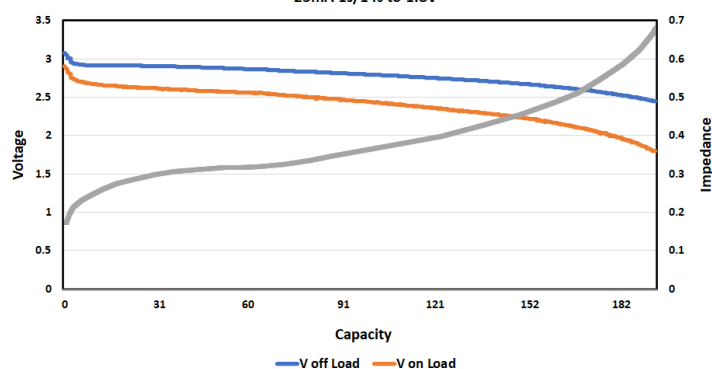
Pulse Load Capability  
5 seconds Load Response



Temperature Discharge  
5000 Ohm Continuous to 2V



Pulse Discharge Impedance  
25mA 1s/14s to 1.8V



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## Warning

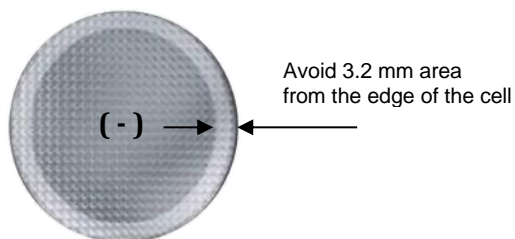
- Fire, explosion and burn hazard
- Do not recharge, short circuit, crush, disassemble heat above 100°C (212°F), incinerate or expose contents to water

## Warning! Keep batteries away from children!

- Always keep your batteries away from children to prevent Swallowing.
- If ingestion does occur, however, be aware that initial symptoms may be similar to other childhood illnesses such as coughing, drooling and discomfort.
- Battery ingestion hotline (1-800-498-8666).

## Cavity Contact Design Recommendation

- Duracell's latest safety innovation added to our CR2032 lithium coin batteries is a bitter coating on the back side of the cell. If a child puts a CR2032 lithium coin battery in their mouth, the bitter coating will immediately react with saliva to release a bitter taste which helps discourage swallowing.
- Duracell recommends device designers and manufacturers avoid placing contacts within 3.2 mm of the perimeter of the negative terminal as shown in Figure 1.



**Figure 1**

## 60086-4 © IEC:2007 Edition 3.0

Test	Test designation	Observation
A	Altitude	Pass
B	Thermal cycling	Pass
C	Vibration	Pass
D	Shock	Pass
E	External short circuit	Pass
F	Impact	Pass
G	Crush	Pass
H	Forced discharge	Pass
I	Abnormal charging	Pass
J	Free fall	Pass
K	Thermal Abuse	Pass