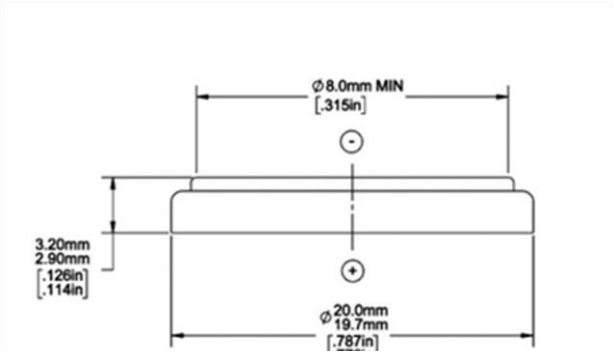
# LITHIUM/MANGANESE DIOXIDE BATTERY


Size: PX2032




Dimensions shown are IEC standards

## 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

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

MEGA-PILES

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.

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Procell Professional batteries
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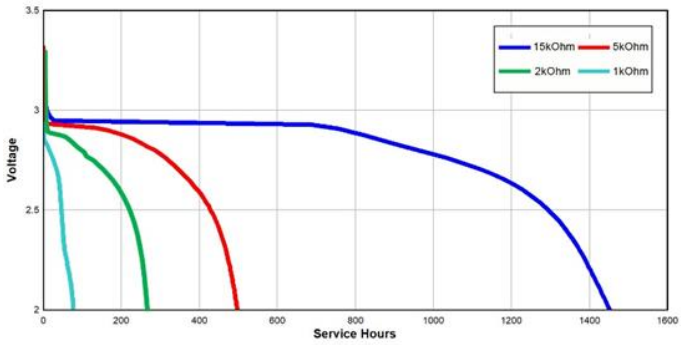
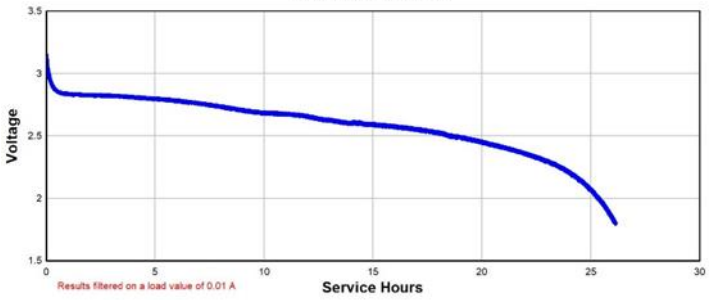
## TYPICAL PERFORMANCE

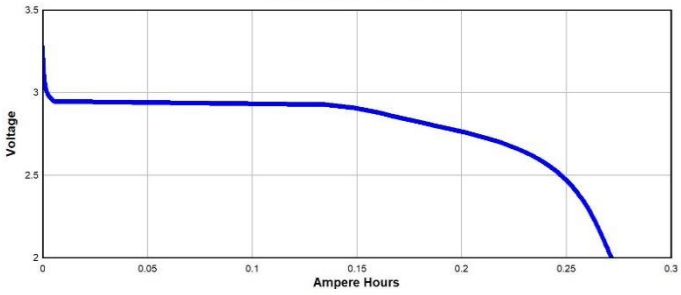
### Continuous Discharge



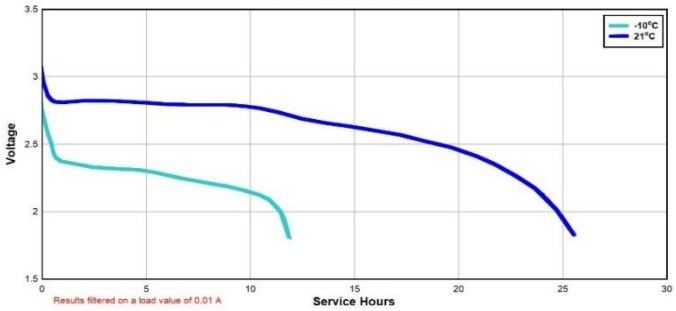

### IEC Key Fob Test
10 mA 5s / 55s to 1.8V



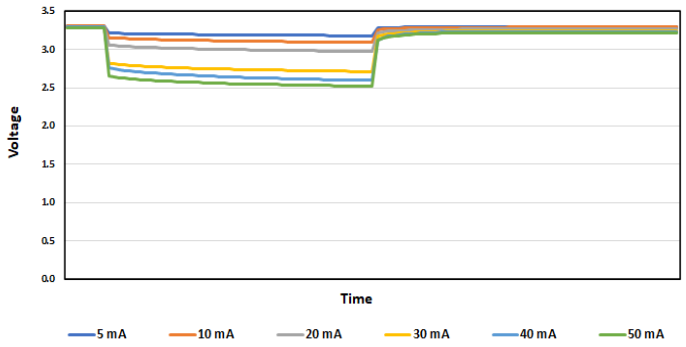

### Rated Capacity
15k Ohm Continuous to 2V



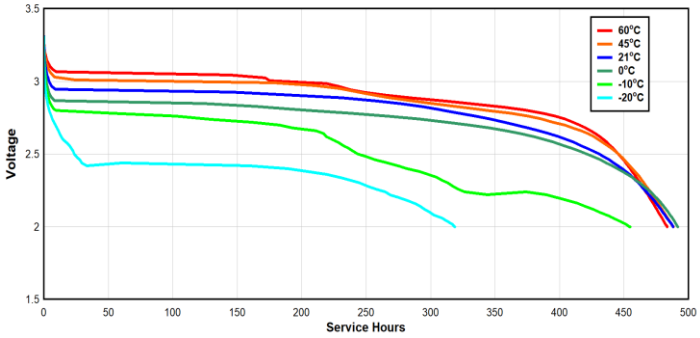

### Temperature Performance - IEC Key Fob
10 mA 5s/m, 24h/d to 1.8V



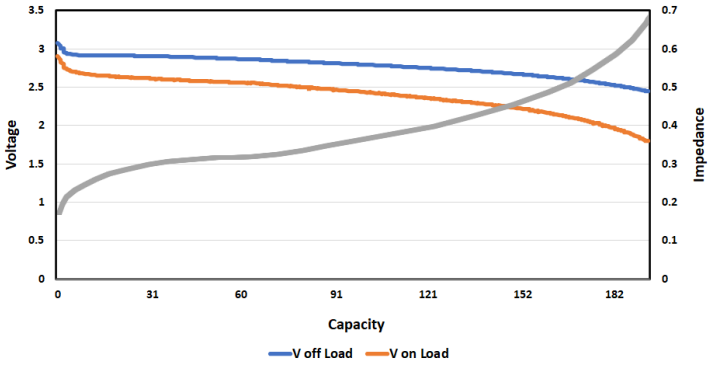

### Pulse Load Capability
5 seconds Load Response




### 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.

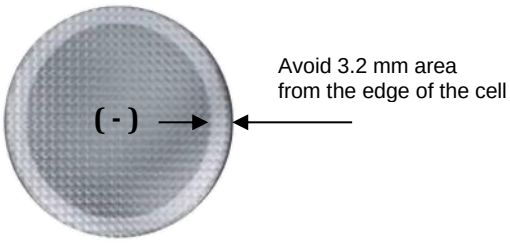


***Figure 1***

## 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 |

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