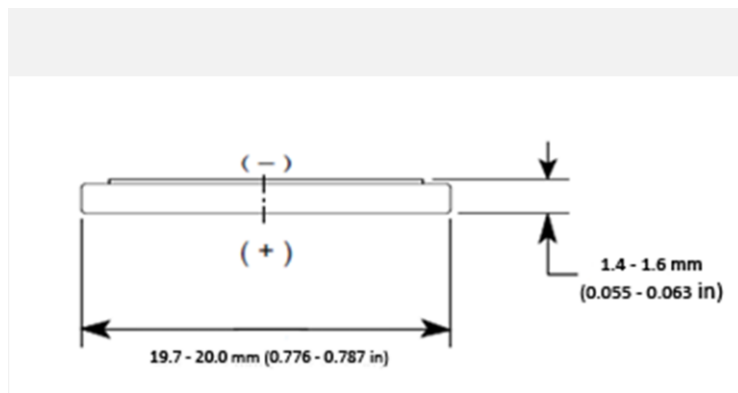


LITHIUM-MANGANESE DIOXIDE BATTERY



Size: PC2016



Dimensions shown are IEC standards

KEY FEATURES

- Industry Highest Cell Capacity & High Energy
- High voltage response, stable during most of the lifetime of the application
- Reliable Performance
- Child-Safe Markings & Retail Packaging
- Wide operating temperature range (-20°C / +60°C)
- Low self-discharge with long operating life (<2% 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
 - REACH compliance
 - Quality: ISO 9001, Duracell World Class Continuous Program

PROCELL®
PROFESSIONAL BATTERIES

Procell Professional Batteries
Berkshire Corporate Park
Phone: 1-800-544-5454 (Toll-free)
www.procell.com

ELECTRICAL CHARACTERISTICS

| | |
|--|---------|
| Nominal capacity (15kΩ Cont., 2.0 V cut-off) | 85 mAh |
| Nominal voltage (at + 20 °C) | 3.0 V |
| Standard Continuous Discharge Current | 0.1 mA |
| Maximum Continuous Discharge Current | 6 mA |
| Maximum Pulse Discharge Current at 1 sec | 20 mA |
| Nominal Energy | 255 mWh |
| AC Impedance @ 1kHz | 8.5Ω |

PHYSICAL CHARACTERISTICS

| | |
|------------------|--------------------|
| Typical weight | 1.75 g (0.061 oz.) |
| Li metal content | approx. 0.024 g |

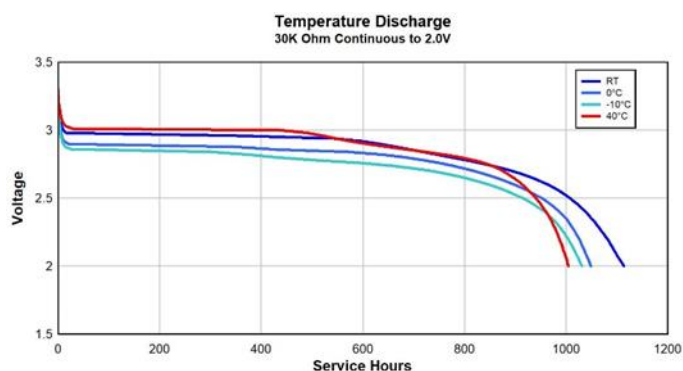
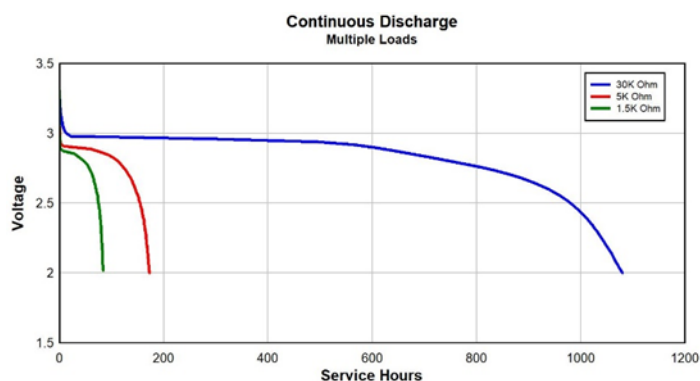
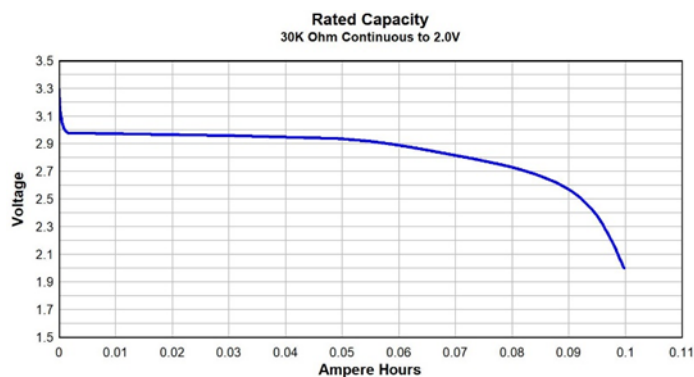
OPERATING & STORAGE CONDITIONS

| | |
|--|---------------------------------|
| Operating temperature range | -20°C to 60° (-4°F to 140°F) |
| Recommended Storage (storage area should be clean, cool, dry and ventilated) | 5°C to 30° (41°F to 86° F) |

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



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

TYPICAL APPLICATIONS

- Medical devices
- Security devices
- Fitness devices
- Watches
- Wireless sensors
- Toys
- Key-Fobs
- Bluetooth Trackers

TYPICAL APPLICATIONS

| 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 |

WARNING

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

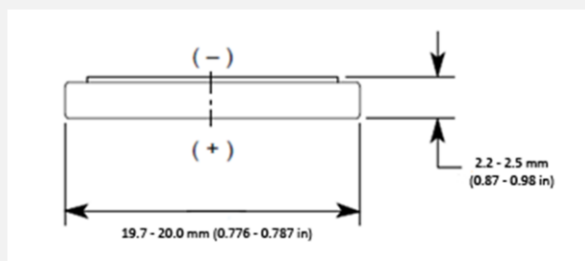
WARNING! KEEP BATTERIES AWAY FROM CHILDREN!

- 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 (860-498-8666)

LITHIUM-MANGANESE DIOXIDE BATTERY



Size: PC2025



Dimensions shown are IEC standards

KEY FEATURES

- Industry Highest Cell Capacity & High Energy
- High voltage response, stable during most of the lifetime of the application
- Reliable Performance
- Child-Safe Markings & Retail Packaging
- Wide operating temperature range (-20°C / +60°C)
- Low self-discharge with long operating life (<2% 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
 - REACH compliance
 - Quality: ISO 9001, Duracell World Class Continuous Program

PROCELL®
PROFESSIONAL BATTERIES

Procell Professional Batteries
Berkshire Corporate Park
Phone: 1-800-544-5454 (Toll-free)
www.procell.com

ELECTRICAL CHARACTERISTICS

| | |
|--|---------|
| Nominal capacity (15kΩ Cont., 2.0 V cut-off) | 165 mAh |
| Nominal voltage (at + 20 °C) | 3.0 V |
| Standard Continuous Discharge Current | 0.2 mA |
| Maximum Continuous Discharge Current | 6 mA |
| Maximum Pulse Discharge Current at 1 sec | 20 mA |
| Nominal Energy | 495 mWh |
| AC Impedance @ 1kHz | 24Ω |

PHYSICAL CHARACTERISTICS

| | |
|------------------|-------------------|
| Typical weight | 2.56 g (0.09 oz.) |
| Li metal content | approx. 0.052 g |

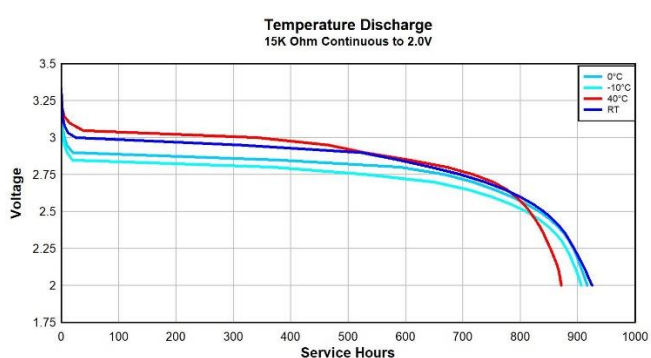
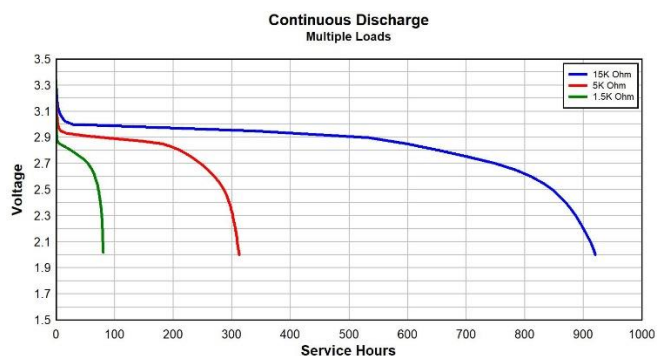
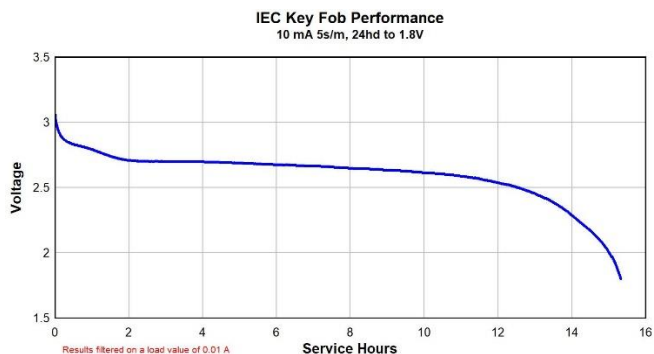
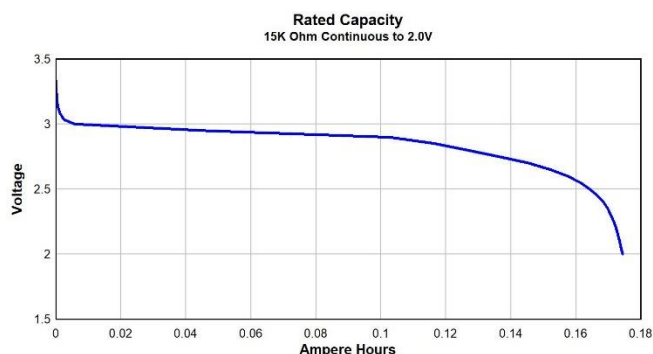
OPERATING & STORAGE CONDITIONS

| | |
|--|----------------------------------|
| Operating temperature range | -20°C to 60°C (-4°F to 140°F) |
| Recommended Storage (storage area should be clean, cool, dry and ventilated) | 5°C to 30°C (41°F to 86°F) |

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



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

TYPICAL APPLICATIONS

- Medical devices
- Security devices
- Fitness devices
- Watches
- Calculators
- Wireless sensors
- Toys
- Key-Fobs & Trackers

TYPICAL APPLICATIONS

| 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 |

WARNING

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

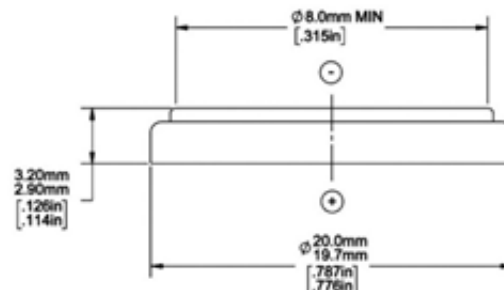
WARNING! KEEP BATTERIES AWAY FROM CHILDREN!

- 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 (860-498-8666)

LITHIUM-MANGANESE DIOXIDE BATTERY



Size: PC2032



Dimensions shown are IEC standards

KEY FEATURES

- High voltage response, stable during most of the lifetime of the application
- Reliable Performance
- Child-Safe Markings & Retail Packaging
- 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
 - RoHS and REACH compliance
 - Quality: ISO 9001, Duracell World Class Continuous Program

ELECTRICAL CHARACTERISTICS

| | |
|---|---------|
| Nominal capacity (15 kΩ Cont., 2.0 V cut-off) | 265 mAh |
| Open circuit voltage (at + 20 °C) | 3.2 V |
| Standard Continuous Discharge Current | 0.3 mA |
| Maximum Continuous Discharge Current | 3 mA |
| Maximum Pulse Discharge Current at 1 sec | 50 mA |
| Nominal Energy | 745 mWh |
| AC Impedance @ 1kHz | 11Ω |

PHYSICAL CHARACTERISTICS

| | |
|------------------|-------------------|
| Typical weight | 2.92 g (0.10 oz.) |
| Li metal content | approx. 0.07 g |

OPERATING & STORAGE CONDITIONS

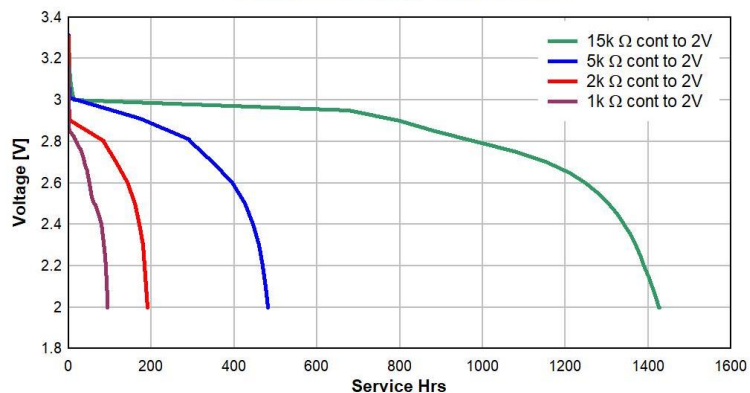
| | |
|--|----------------------------------|
| Operating temperature range | -20°C to 60°C (-4°F to 140°F) |
| Recommended Storage (storage area should be clean, cool, dry and ventilated) | 5°C to 30°C (41°F to 86°F) |

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.

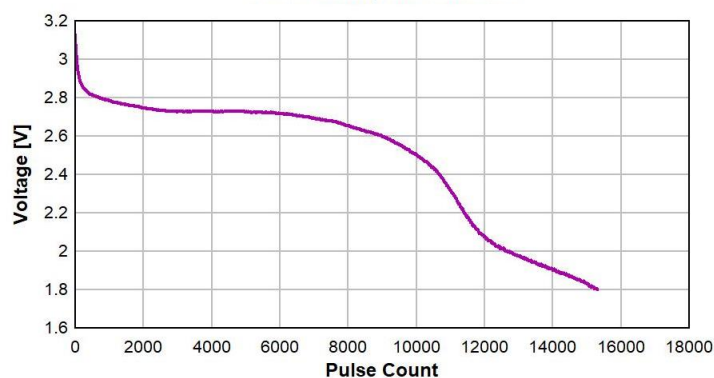
This data is subject to change. Performance information is typical. Contact Duracell for the latest information.

TYPICAL PERFORMANCE

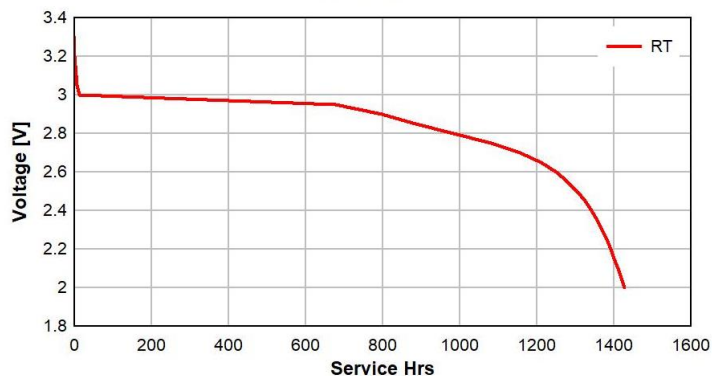
Continuous Discharge Characteristics



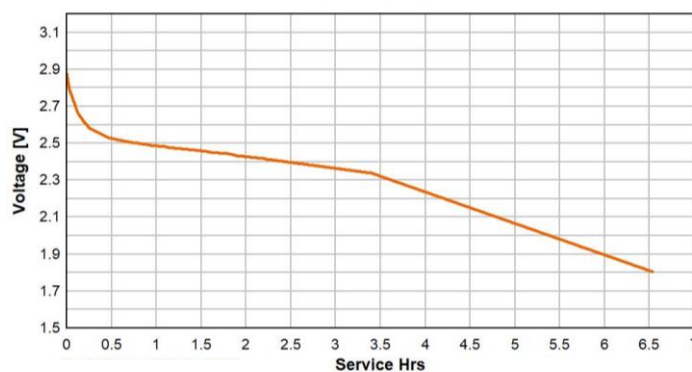
ANSI Key Fob Test
10 mA 5ms/m, 24hd until 1.8V



Temperature Discharge Characteristics
15k Ω Cont. to 2V



High Resistance Test
65 Ω /12mA to 1.8V



TYPICAL APPLICATIONS

- Medical devices
- Security devices
- Fitness devices
- Watches
- Calculators
- Wireless sensors
- Key-Fobs & Trackers

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 |

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.
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