

# LITHIUM/MANGANESE DIOXIDE BATTERY



### **KEY FEATURES**

- Industry Highest Cell Capacity & High Energy
- High voltage response, stable during most of the lifetime of the application
- Reliable Performance
- Wide operating temperature range (-20°C/ + 75°C)
- Low self-discharge with long operating life (<1% after 1 year of storage at + 20 °C)</li>
- Excellent resistance to corrosion
- Designed to meet all major quality, safety, and environment standards:
  - o Safety: IEC 60086-4
  - o Transport: UN 38.3
  - o RoHS and REACH compliance
  - Quality: ISO 9001, Duracell World Class Continuous Program

#### TYPICAL APPLICATIONS

- Security Devices (sensors, monitoring cameras)
- Smoke Detectors
- Wireless Sensors
- Door Locks
- High Intensity Flashlights
- Laser Sights



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



Dimensions shown are IEC/ANSI standards

### ELECTRICAL CHARACTERISTICS

<ul> <li>Nominal capacity (100 Ohm Cont, 0.2 V cut-off)</li> </ul>	1600 mAh
<ul> <li>Typical Voltage (at +20°C)</li> </ul>	3.2-3.3 V
<ul> <li>Standard Continuous Discharge Current</li> </ul>	20 mA
<ul> <li>Maximum Continuous Discharge Current</li> </ul>	60 mA
<ul> <li>Maximum Abnormal Charge Current</li> </ul>	25 mA
<ul> <li>Nominal Energy</li> </ul>	4.35 Wh
<ul> <li>AC Impedance @ 1kHz</li> </ul>	350 mOhm

#### PHYSICAL CHARACTERISTICS

•	Typical weight	17.0g (0.60 oz.)
	Li metal content	approx. 0.53 g

### **OPERATING & STORAGE CONDITIONS**

•	Operating temperature range	-20°C to 75°C (-4°F to 167°F)
•	Recommended Storage Storage area should be clean, cool	( 11 to 101 1)
	(preferably not exceeding +30°C), 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.

### F **PROFESSIONAL BATTERIES**

### TYPICAL PERFORMANCE







**Rated Capacity** 100 Ohm Continuous to 2V 3.5 Voltage 1.5 0.200 0.400 0.600 1.000 1.200 1.400 1.600 1.800 0.000 0.800 Ampere Hours

### 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



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**Pulse Discharge Impedance** 

40mA 1s/14s to 1.8V

Capacity (mAh) V on Load

IMP

## 60086-4 © IEC:2007 Edition 3.0

3.5

3

2.5

2

1.5

1

0.5

0 0

Voltage (V)

Test	Test designation	Observation
А	Altitude	Pass
В	Thermal cycling	Pass
С	Vibration	Pass
D	Shock	Pass
Е	External short circuit	Pass
F	Impact	Pass
G	Crush	Pass
Н	Forced discharge	Pass
Ι	Abnormal charging	Pass
J	Free fall	Pass
К	Thermal Abuse	Pass

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### Li / MnO<sub>2</sub>

0.45

0.4

0.35 (Ohm)

0.3

0.25 pedance

0.2 0.15

0.05

0

Ξ 0.1

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