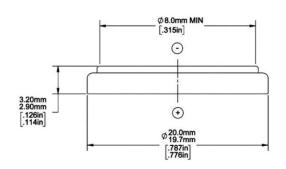
DURACELL®

CR 2032 🗆 🗆

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
- Child-Safe Markings & Retail Packaging
- Wide operating temperature range (- 20°C / + 60°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:

o □Safety: IEC 60086-4

o Transport: UN 38.3

 $\circ \Box REACH$ compliance

o □Quality: ISO 9001, Duracell World Class Continuous □ Program □

Electrical characteristics

•	Nominal capacity (15k Ohm 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	11 Ohm

Physical characteristics

 Typical weight 	2.92 g (0.10 oz.)		
 Li metal content 	approx. 0.07 g		
Operating conditions			
 Operating temperature range 	-20°C to 60°C (-4°F to 140°F)		

 Storage temperatures Recommended 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.



Berkshire Corporate Park Bethel, CT. 06801 U.S.A. Telephone: Toll-free 1-800-544-5454 www.duracell.com

CR2032JCS0820

DURACELL®

CR 2032 🗆

Lithium/Manganese Dioxide Battery

300

22.5

7

6.5

21

Continuous Discharge Characteristics Typical applications 3.4 3.2 Medical devices 3 Security devices 2.8 **Fitness devices** Voltage 2.6 Watches 2.4 Calculators 2.2 Wireless sensors 2 0 50 100 150 200 250 Toys Capacity Key-Fobs & Trackers 1k Ohms cont to 2V 2k Ohms cont to 2V -5k Ohms cont to 2V 15k Ohms cont to 2V **Temperature Discharge** 15 kOhm Continuous to 2.0V ANSI Key Fob Test 10 mA 5s/m, 24hd to 1.8V 3.25 3.3 2.75 Voltage 2.7 2.5 2.4 2.5 Aoltade 2.25 2.1 1.8 1.75 1.5 0 0.03 0.06 0.09 0.12 0.15 0.18 0.21 0.24 0.27 0.3 **Ampere Hours** 1.5 1.5 10.5 12 Service Hrs 13.5 16.5 18 19.5 Impedance Under Load **High Resistance Rest** 3.40 65ohm/12mA to 1.8V 3.30 3.1 2.9 3.10 2.7 Voltage 2.90 2.5 2.80 ato 2.3 2.60 2.1 1.9 0:00.0 0:05.1 0:05.3 0:05.4 70:00 70:00 70:00 80:00 80:00 80:00 80:00 80:00 Duration (H:M:S) 1.7 -30mA -10mA 1.5 5.5 0.5 1.5 2 2.5 3.5 4.5 6 3 5 Service Hrs DURAC

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.

Berkshire Corporate Park

Bethel, CT. 06801 U.S.A.

www.duracell.com

Telephone: Toll-free 1-800-544-5454

CR2032JCS0820

DURACELL®

CR 2032 🗆 🗆

Li/Mn0₂

Lithium/Manganese Dioxide Battery

IEC 60086-4

Test	Test designation	Observation
А	Altitude	Pass
В	Thermal cycling	Pass
С	Vibration	Pass
D	Shock	Pass
E	External short circuit	Pass
F	Impact	Pass
G	Crush	Pass
Н	Forced discharge	Pass
I	Abnormalcharging	Pass
J	Free fall	Pass
К	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. 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)

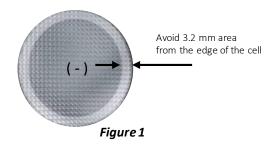
Storage

The storage area should be clean, cool (preferably not exceeding +30 $^{\circ}\mathrm{C}$), dry and ventilated

Cavity Contact Design Recommendation

Duracell implemented on-cell Child Secure Technology to protect against accidental lithium coin battery ingestion. Nontoxic, bitter coating on the battery that is designed to compel those who put battery in their mouth to immediately spit the battery out.

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.





Berkshire Corporate Park Bethel, CT. 06801 U.S.A. Telephone: Toll-free 1-800-544-5454 www.duracell.com

CR2032JCS0820