PRODUCTS

INDUSTRIAL SOLUTIONS

LITHIUM - Coin Type

Coin type lithium batteries are high energy, high reliability batteries for a variety of applications. The full 3 volts in these high energy density batteries is about twice that of conventional dry batteries.

Panasonic coin type lithium batteries are available in two types: poly-carbonmonofluoride lithium batteries (BR series) for uses that require extended reliability and safety, and manganese dioxide lithium batteries (CR series) for uses that require high voltage and strong load pulse characteristics.

The CR Lithium primary coin cells contain Perchlorate over the limit specified by the state legislature of California and are therefore subject to requirements in the California Code of Regulations, title 22, division 4.5: Chapter 33 – Best Management Practices for Perchlorate Materials.



Features:

- High voltage of 3 volts twice that of conventional dry batteries
- Extremely small self-discharge for long service and shelf life
- A wide operational temperature range
- Compact and lightweight; extremely high energy density per unit weight
- Very safe (poly-carbonmonofluoride lithium)
- Extremely strong load pulse characteristics (manganese dioxide lithium)
- Operating temperature range:

BR Coin Cells: -30° C ~ $+80^{\circ}$ C CR Coin Cells: -30° C ~ $+60^{\circ}$ C

Applications:

- Calculators
- Cameras
- Compact, low power consuming cordless applications
- Electronic translators
- Electronic watches (digital and analog)
 Memory back-up in all types of devices (with tab terminals)

Technical Data - Table 1 - (CF)n/LI: Poly-Carbon Monofluoride (BR)							
Model	Electrical Characteristics (20°C)		Standard Load	Dimensions		Tab Configurations	
No.	Nominal Voltage (V)	*Nominal Capacity (mAh)	Continuous Drain (mA)	Diameter (mm)	Height (mm)	Weight (g)	Tab Comigurations
<u>BR1220</u>	3	35	0.03	12.5	2.00	0.7	
<u>BR1225</u>	3	48	0.03	12.5	2.50	0.8	
<u>BR1632</u>	3	120	0.03	16.0	3.20	1.5	
<u>BR2032</u>	3	190	0.03	20.0	3.20	2.5	
<u>BR2325</u>	3	165	0.03	23.0	2.50	3.2	
<u>BR2330</u>	3	255	0.03	23.0	3.00	3.2	
<u>BR3032</u>	3	500	0.03	30.0	3.20	5.5	
* Nominal capacity shown is based on standard drain and cut off voltage down to 2.0V at 20°C.							
Technical Data - Table 2 - Mn0₂/LI:Manganese Dioxide (CR)							

Technical Data - Table Z - Miloz/Li.Manganese Dioxide (CK)								
Model	Electrical Characteristics (20°C)		Standard Load	Dimensions				Tab Configurations
No.	Nominal Voltage (V)	*Nominal Capacity (mAh)	Continuous Drain (mA)	Diameter (mm)	Height (mm)	Weight (g)		
<u>CR1025</u>	3	30	0.10	10.0	2.50	0.7		
<u>CR1216</u>	3	25	0.10	12.5	1.60	0.7		

<u>CR1220</u>	3	35	0.10	12.5	2.00	1.2	
<u>CR1612</u>	3	40	0.10	16.0	1.20	0.8	
<u>CR1616</u>	3	55	0.10	16.0	1.60	1.2	
<u>CR1620</u>	3	75	0.10	16.0	2.00	1.3	
<u>CR1632</u>	3	140	0.10	16.0	3.20	1.8	
<u>CR2016</u>	3	90	0.10	20.0	1.60	1.6	
<u>CR2025</u>	3	165	0.20	20.0	2.50	2.3	
<u>CR2032</u>	3	225	0.20	20.0	3.20	2.9	
<u>CR2330</u>	3	265	0.20	23.0	3.00	3.8	
<u>CR2354</u>	3	560	0.20	23.0	5.40	5.8	
<u>CR2412</u>	3	100	0.20	24.5	1.20	2.0	
<u>CR2450</u>	3	620	0.20	24.5	5.00	6.3	
<u>CR2477</u>	3	1000	0.20	24.5	7.70	10.5	
<u>CR3032</u>	3	500	0.20	30.0	3.20	6.8	

* Nominal capacity shown is based on standard drain and cut off voltage down to 2.0V at 20°C.

Note: Cells are available in assorted tab configurations.

Consult your local regional office for additional information.

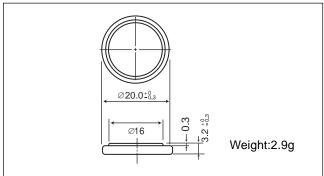
Technical Data - Table 3 - Coin Cell Tab Configurations (BR Series)

Model No.	Tab Description Drawing			
BR1225/1HC	2 pin, horizontal mount, through hole, (with insulation wrap)			
BR1225/1VC	2 pin, vertical mount, through hole, (with insulation wrap)			
BR1632/1HF	2 pin, horizontal mount, through hole, (with insulation wrap)			
BR2032/1GU	3 pin, horizontal mount, through hole, (without insulation wrap)			
BR2032/1HE	2 pin, horizontal mount, through hole, (without insulation wrap)			
BR2032/1VB	2 pin, vertical mount, through hole, (without insulation wrap)			
BR2032/1F2	2 pin, flat mount, (with insulation wrap)			
BR2325/1HC	2 pin, horizontal mount, through hole, (with insulation wrap)			
BR2325/1HB	2 pin, horizontal mount, through hole, (without insulation wrap)			
BR2325/1VC	2 pin, vertical mount, through hole, (without insulation wrap)			
BR2325/1HG	2 pin, horizontal mount, through hole, (without insulation wrap)			
<u>BR2325/1VG</u>	2 pin, vertical mount, through hole, (without insulation wrap)			
BR2330/1HE	2 pin, horizontal mount, through hole, (without insulation wrap)			
BR2330/1VC	2 pin, vertical mount, through hole, (with insulation wrap)			
BR2330/1GVF	3 pin, vertical mount, through hole, (with insulation wrap)			

Manganese Dioxide Lithium Coin Batteries: Individual Specifications

CR2032

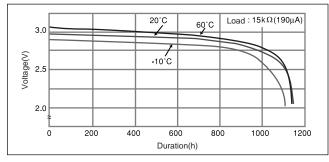
Dimensions(mm)



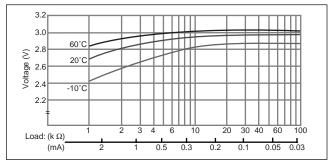
Specification

Nominal voltage (V)	3
Nominal capacity (mAh)	225
Continuous standard load (mA)	0.2
Operating temperature (C)	-30 ~ +60

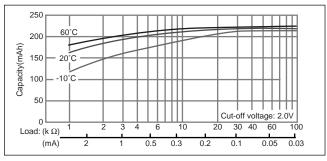
Temperature Characteristics



Operating voltage vs. load resistance (voltage at 50% discharge depth)

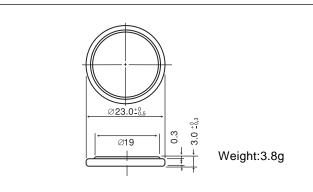


Capacity vs. load resistance



CR2330

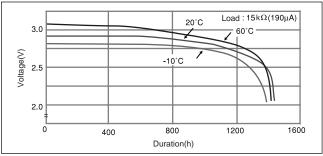
Dimensions(mm)



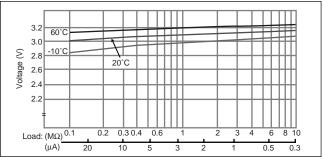
Specification

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Nominal voltage (V)	3
Nominal capacity (mAh)	265
Continuous standard load (mA)	0.2
Operating temperature (C)	-30 ~ +60

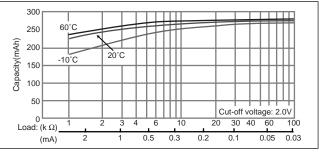
Temperature Characteristics



Operating voltage vs. load resistance (voltage at 50% discharge depth)



Capacity vs. load resistance



Panasonic

LITHIUM HANDBOOK

AUGUST 2005

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