

## FEATURES

- UN38.3
- High Energy Density
- Non-Rechargeable Lithium Coin Type Manganese Batteries
- Wide Operating Temperature Range
- Low self-discharge rate and Excellent Shelf Life
- Nominal voltage 3V
- Suited to intermitted high load applications they have excellent reliability and a high capacity.

## RS PRO Non- Coin Cell Type Manganese Lithium Battery CR3032

RS Stock No.: 2211620



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

## Product Description

The RS PRO CR3032 is a Coin type manganese Lithium battery that can be used to power electronic devices. It is non-rechargeable. This coin battery is suitable for intermittent high load applications and has an excellent shelf life.

## General Specifications

Battery type	CR3032	
Nominal voltage	3.0V	
Nominal capacity	500mAh (on continuous discharge at 20°C under 7.5kΩ load to 2.0V end-voltage ,	
Outer dimension	Outer dimensions shall be as shown in Fig. 1, Battery Dimensions.	
Mass weight	Approximate 6.8g	
Terminals	Materials of Positive electrode	SUS430/SUS430+Ni-Plated
	Negative electrode	SUS430/SUS430+Ni-Plated

## Typical Application

- Memory back-up
- Notebook
- Desktop computer
- Mobile phone
- PDA's
- Office equipment
- Fax machines

## Electrical Specifications

CLASSIFICATION		MANGANESE DIOXIDE LITHIUM PRIMARY BATTERY
BATTERY SYSTEM		COIN TYPE MANGANESE DIOXIDE LITHIUM BATTERY
BATTERY TYPE		CR3032
NOMINAL VOLTAGE		3.0V
NOMINAL CAPACITY		500mAh ON CONTINUOUS DISCHARGE UNDER 7.5kΩ load to 2.0V end-point)
STANDARD DISCHARGE CURRENT		0.2mA
MASS		APPROX. 6.8g
TERMINALS	CAP TERMINAL CASE TERMINAL	SUS430/SUS430+Ni-plated SUS430/SUS430+Ni-plated
OUTER DIMENSIONS	DIAMETER	Φ30.0(+0/-0.3) mm
	OVERALL HEIGHT	3.2(+0/-0.3) mm
USABLE TEMPERATURE RANGE		-20°C~+70°C
STORAGE TEMPERATURE RANGE		0°C~30°C
STORAGE HUMIDITY RANGE		35%~75%

## The Appearance Of CR3032

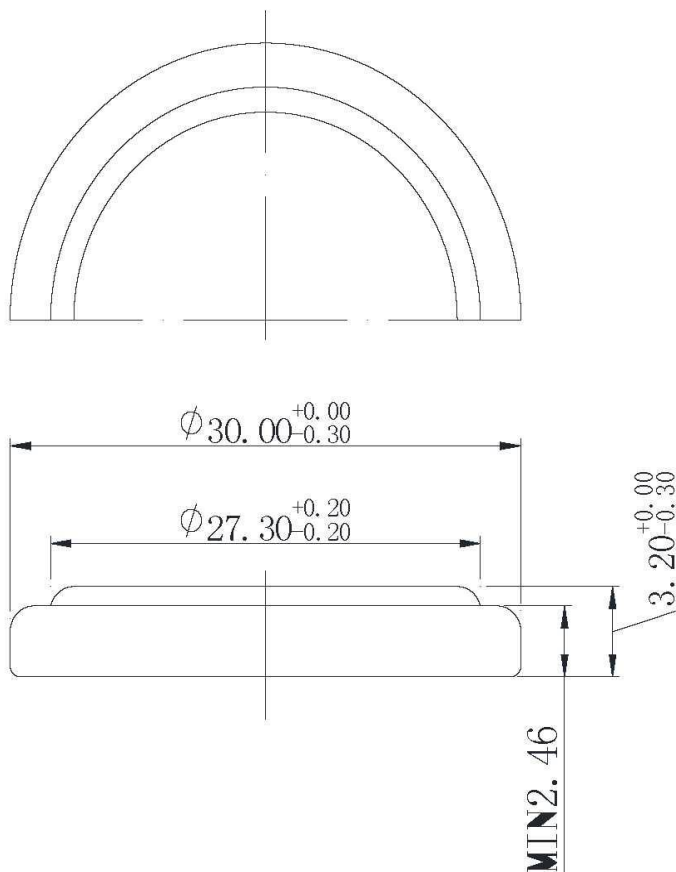
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## The Dimensions Of CR3032

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Fig.1



## Performance and Test

### Characteristics

**Table 1.**

TEST ITEMS	TEMPERATURE	INITIAL	AFTER 12 MONTHS	REMARKS
Open-circuit voltage	20±2°C	3.0V TO 3.4V	3.0V TO 3.4V	
Closed-circuit voltage	20±2°C	3.0V TO 3.4V	3.0V TO 3.4V	Load Resistance 7.5KΩ. 0.8 Sec.

**Table 2.**

TEST ITEMS	TEMPERATURE	INITIAL	AFTER 12 MONTHS	REMARKS
Service Life	20±2°C	1300Hrs. Or Longer	1274 Hrs. or Longer	Continuous Discharge Under 7.5KΩ Load to 2.0V End-Voltage

**Table 3.**

TEST ITEM	STORAGE TEMPERATURE	STORAGE PERIOD	REQUIREMENT	REMARKS
Service Life After Storage at High Temperature	60±2°C	20 Days	1274 Hrs Minimum	Continuous Discharge At 20± 2°C Under 7.5KΩ Load To 2.0V End - Voltage After Storage

**Table 4.**

TEST ITEM	REQUIREMENT	TEST CONDITIONS
Leakage Characteristics	No Leakage	Temperature : 45±2°C, Relative Humidity: 75% Storage : 30 Days Shall Be Inspected by Visual Means

**Table 5**

TEST ITEM	REQUIREMENT	TEST CONDITIONS
Self-Discharge	2% or Below	Continuous Discharge Under 7.5KΩ Load To 2.0V End-Voltage After 12 Months Storage At 20°C.

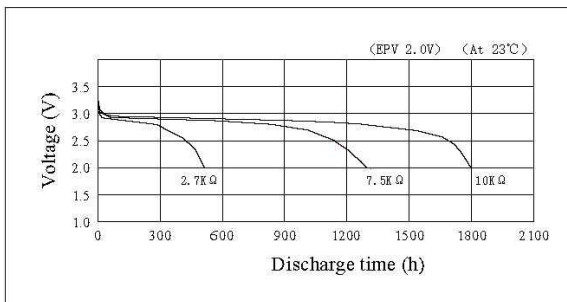
## Lithium manganese dioxide battery

# CR3032

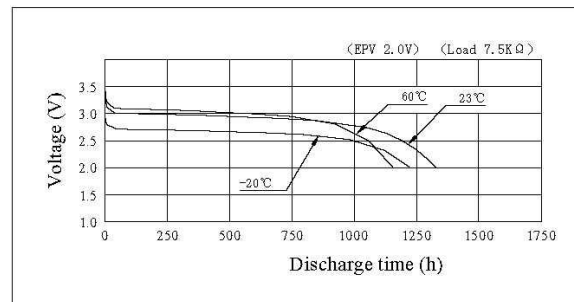
### Specifications

Nominal Voltage	3V	<p style="text-align: center;">Dimensions (mm)</p>	A	$\phi 27.3$
Nominal Capacity	500 (mAh)		B	$\phi 30.0^{+0.0}_{-0.3}$
Continuous standard load	7.5 (K $\Omega$ )		C	2.46 (Ref.)
Operating temperature	-20~70 $^{\circ}\text{C}$		D	$3.2^{+0.0}_{-0.3}$
Weight	6.8g			

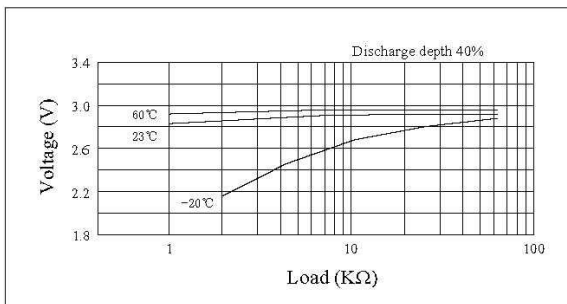
### Discharge characteristics



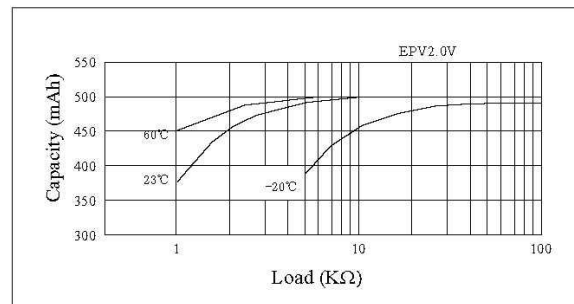
### Temperature characteristics



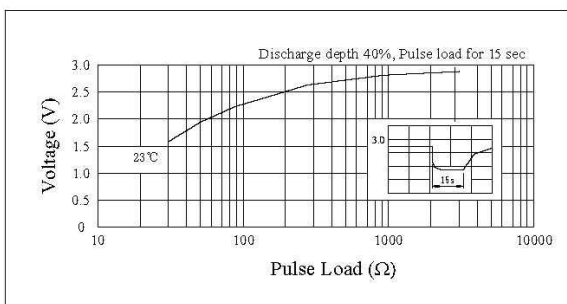
### Load vs. Operating voltage



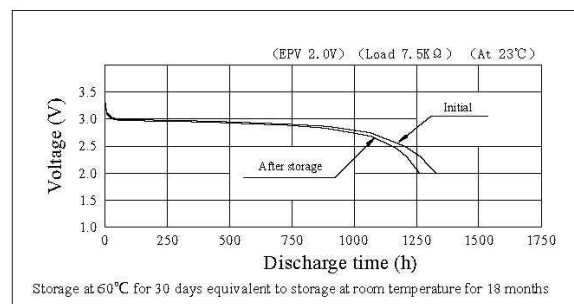
### Load vs. Capacity

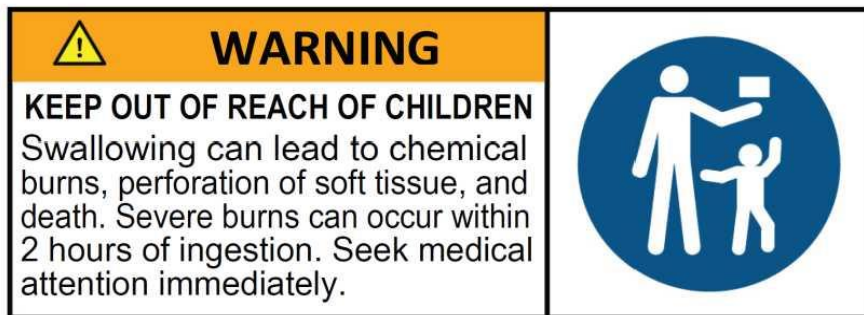


### Pulse discharge characteristics



### Storage characteristics





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## WARNING:

- Never charge the battery, Charging the battery may cause of seethe of the battery electrolyte or increase of the battery internal pressure. Leakage, heating, explosion or ignition of the battery may be caused as a result of it.
- Keep away from infants. If infants happen to swallow the battery, consult a doctor immediately.
- In case of eye contact with the battery electrolyte, immediately flush eyes thoroughly with water, and consult a doctor.
- In case the battery electrolyte happens to come into mouth, gargle well enough and consult a doctor immediately.
- Do not heat or disposed in fire or water. Do not modify or disassemble the battery. It may damage the gasket, and may cause ignition, heating. Leakage or explosion.
- Do not short-circuit positive (+) and negative (-) terminals, Keep away from metal or other conductive materials. Jumbling the batteries of direct contact with positive (+) and negative (-) terminals and metal or other conductive materials may cause short-circuit.
- When the battery is stored or disposed, isolate positive (+) and negative (-) terminals of the battery to avoid those terminals touch each other.
- Insert the battery with positive (+) and negative (-) terminate correctly oriented

## Precaution:

1. Do not put the battery into microwave oven or drying machine.
2. Do not drop, apply excessive damage or deform the battery.

3. Do not mix the used battery together with the new battery or different type of batteries.
4. Do not store the battery in high temperature and high humidity location and where the battery is exposed to sunlight to avoid performance deterioration, swelling or leakage, of the battery.

## Approvals

<b>Declarations</b>	MFR Declaration of Conformity
<b>Hazardous Area Certification</b>	ATEX / IECEx
<b>Standards Met</b>	VDE

Connection Diagrams / Assembly Diagrams / Illustrations / Accessories