

# What makes CR123A the ideal 3V?

CR123A batteries are known by a number of names including

**CR123, 123A and 123.**

Initially designed for use in cameras, CR123A batteries are now widely used in Wireless Security, Home Automation, Smoke Detectors, Illumination Equipment, Tactical Equipment and more.

Choosing a CR123A for these applications has many advantages.



**ULTRALIFE OFFERS:**  
Military and medical proven Manganese Dioxide Lithium chemistry

## WIRELESS SECURITY



Whilst alkaline batteries may experience steep voltage drops, a common characteristic in lithium CR123As is the steady voltage curve that allows for high power for the whole battery life.

Voltage drops can cause erratic performance, which could potentially compromise a smart security system — particularly those that are connected to wireless networks.

**VOLTAGE CHARACTERISTICS:**  
Steep voltage drops - Alkaline  
Steady voltage curve - Lithium

Home automation devices, such as smart lighting or speakers, can be wired into the house and powered from the electrical network. However, small sensors (such as motion and door entry) are often battery powered for easy installation in key locations.

These batteries sit idle until the sensor is activated, so it is important that they have a long shelf life.

## HOME AUTOMATION



**SHELF LIFE:**  
Many batteries for smart cameras - 4 to 6 months  
Ultralife CR123A - approx. 10 years

## SMOKE DETECTORS



Safety devices like smoke alarms cannot afford to lose power, so it is important to test them regularly. It also makes sense to choose Lithium Manganese Dioxide (LiMnO2) batteries with minimal self-discharge; particularly CR123As.

Many smoke detectors are moving from 9V batteries to 3V CR123As, as electronics advance and become more efficient.

Choose a battery with a very small self-discharge

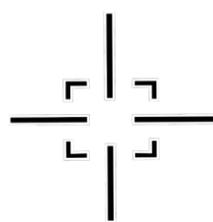
CR123As can provide higher current to lighting applications. LED lights that use CR123A batteries are generally brighter than AA and often only one cell is required rather than two (reducing the size of the end product).

## ILLUMINATION EQUIPMENT



**MAX DIMENSIONS OF ULTRALIFE'S CR123A:**  
Length: 34.5mm  
Diameter: 17.0mm

## TACTICAL EQUIPMENT



Tactical equipment, such as scopes, laser rangefinders and ballistic computers, is often used outdoors, so the wide operating temperature range of CR123As is ideal - as they can be used in extremely cold or hot environments.

CR123A batteries are considered to be ideal for survival equipment, such as beacons and emergency location transmitters, due to their lengthy shelf life and Ultralife's history of proven military designs.

**WIDE OPERATING TEMPERATURE RANGE:**  
-20°C to 60°C for Ultralife's CR123A

## CHOOSING THE RIGHT MANUFACTURER

In the home safety and security markets; ULTRALIFE has over 25 years of experience and sold over 100 million lithium 9V batteries. The new CR123A is manufactured at Ultralife's ISO 9001 registered facility and is available anywhere in the world.

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Contact us for more information or to discuss how to integrate the CR123A into your next device development

**POWERING IoT? THINK ULTRALIFE 123**

ULTRALIFE's new CR123A battery has been specifically designed for wireless security and home automation applications. In the home safety and security markets, ULTRALIFE has over 25 years of experience and sold over 100 million lithium 9V batteries. The new CR123A battery utilizes the same Manganese Dioxide Lithium Chemistry that has proven itself in military and medical sectors.

Highly resistant to self-discharge, the CR123A is one of the most reliable types of choice for applications as diverse as Remote Controls, Smoke Alarms, Security Systems, Beacons and Emergency Location Transmitters (ELT), Handheld Equipment, Internet of Things (IoT) Devices and more.

The CR123A is manufactured in Ultralife's China factory to supply global markets, and is well positioned to provide a cost-effective, portable power solution to consumers in Europe and Asia.

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**CR123A 3.0V 1500mAh**  
Manganese Dioxide Lithium Battery

- Lightweight cells with dependable output voltage
- High energy density
- Wide working temperature range
- Low self-discharge
- High reliability
- 10 year shelf life

**TECHNICAL SPECIFICATION**

| ATTRIBUTE             | VALUE               |
|-----------------------|---------------------|
| Voltage (Nominal)     | 3.0V                |
| Capacity (Nominal)    | 1500mAh             |
| Energy (Nominal)      | 4.5Wh               |
| Energy Density        | 300Wh/kg (2700Wh/L) |
| Operating Temperature | -20°C to 60°C       |
| Self-Discharge Rate   | < 1% per year       |
| Weight                | 17g                 |
| Length                | 34.5mm              |
| Diameter              | 17.0mm              |
| Height                | 17.0mm              |
| Operating Temperature | -20°C to 60°C       |
| Self-Discharge Rate   | < 1% per year       |
| RoHS Compliant        | Yes                 |
| RECYCLED CONTENT      | 100%                |

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