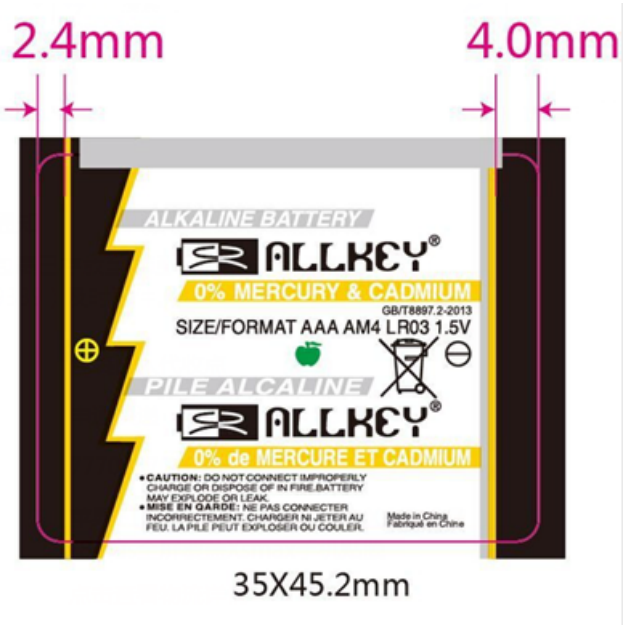
2.4mm
4.0mm
ALKALINE BATTERY
ALLKEY®
0% MERCURY & CADMIUM
GB/T8897.2-2013
SIZE/FORMAT AAA AM4 LR03 1.5V
PILE ALCALINE
ALLKEY®
0% de MERCURE ET CADMIUM
• CAUTION: DO NOT CONNECT IMPROPERLY CHARGE OR DISPOSE OF IN FIRE,BATTERY MAY EXPLODE OR LEAK.
• MISE EN GARDE: NE PAS CONNECTER INCORRECTEMENT, CHARGER NI JETER AU FEU. LA PILE PEUT EXPLOSER OU COULER.
Made in China
Fabriqué en Chine
35X45.2mm

ShenZhen ALLKEY Battery Co., Ltd.

深圳市永能电池有限公司

23A



TECHNICAL SPECIFICATION

ALKALINE ZINC MANGANESE DIOXIDE BATTERY

PREPARED BY: 张伟

APPROVED BY 彭小云

DATE: 2016-7

SPEC.NO: **AKRef--23A--E**

办公地址: 中国深圳市宝安区西乡街道固戍宝安大道4235号红湾商务大厦4楼
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电话/Tel: + 86 755 2995 7377 传真/Fax: + 86 755 2995 7977
网址/Website: www.allkeybattery.com 邮箱 / E-mail: info@allkeybattery.com

(The Manufacturer reserves the right to modify product specification and data stated herein without prior notice.)

1、Scope

The specification is applicable to ALLKEY ALKALINE BATTERY 23A.

1.1 Designations

ALLKEY	IEC	Other
23A	----	L1028、A23、MN21、MS21、V23GA、LR23A

1.2 Reference Document

IEC 60086-1：2000 ---Primary Batteries – General

IEC 60086-2：2001 ---Primary Batteries - Specification Sheets

GB/T8897.1—2008 ---Primary Batteries – General

2、Chemical System

Alkaline-Manganese Dioxide (-) Zn | KOH | MnO_2(+)

3、Nominal Voltage: 12.0 volt

4、Average Weight: 7.85g

5、Nominal Capacity

52mAh （20kΩload resistance, discharge 24hours per day at 20±2℃, E.P.V 6V。）

6、Electrical Characteristics

(Conditions : 1000Ω±0.5% load resistance, measuring time 0.3seconds, 20±2℃, tested within 30 days after delivery)

	Off-load voltage (V)	On-load voltage (V)	Acceptance Standard
New battery	12.3	11.5	MIL-STD105E, Class ll, Double Sampling, AQL=0.4
After 12 mon. room temp.	12.1	11.0	

7、Service Output

(Conditions : Test temp. 20±2℃, tested within 30 days after delivery。)

	Discharge Condition			Average Minimum Discharge Time	
	Discharge Load	Daily Discharge time	End Point Voltage(V)	New battery	After 12mth.at room temp.
Standard	20kΩ	24h	6.0	95h	85h
Reference	1KΩ	1S/4S,24h	6.0	18000times	17000times

Acceptance Standard：

(1) 9 pieces of battery will be tested for each discharging standard .

(2) The result of the average discharging time from each discharging standard shall be equal to or more than the average minimum time requirement.

8、Electrolyte Leakage Proof Characteristics

Item	Condition	Periods	Characteristics	Acceptance Standard
Over-discharge Characteristics	20kΩcontinuous discharge at temp. 20±2℃, Relative Humidity : 65±20%RH	Continuous discharge 48 hours after discharge termination	There shall be no leakage or explosion recognized by human eye	N=9, Ac=0, Re=1

9、Marking

The following markings will be printed, stamped or impressed on the body of the battery:

(1) Designation: 23A;

(2) Manufacturer's name or abbreviation:

(3) Nominal voltage: 12V ;

(4) Polarity: "+" or "-";

10、Caution for Use

(1) Since the battery is not manufactured for recharging, there are risks of electrolyte leakage or causing damage to the device if the battery is charged.

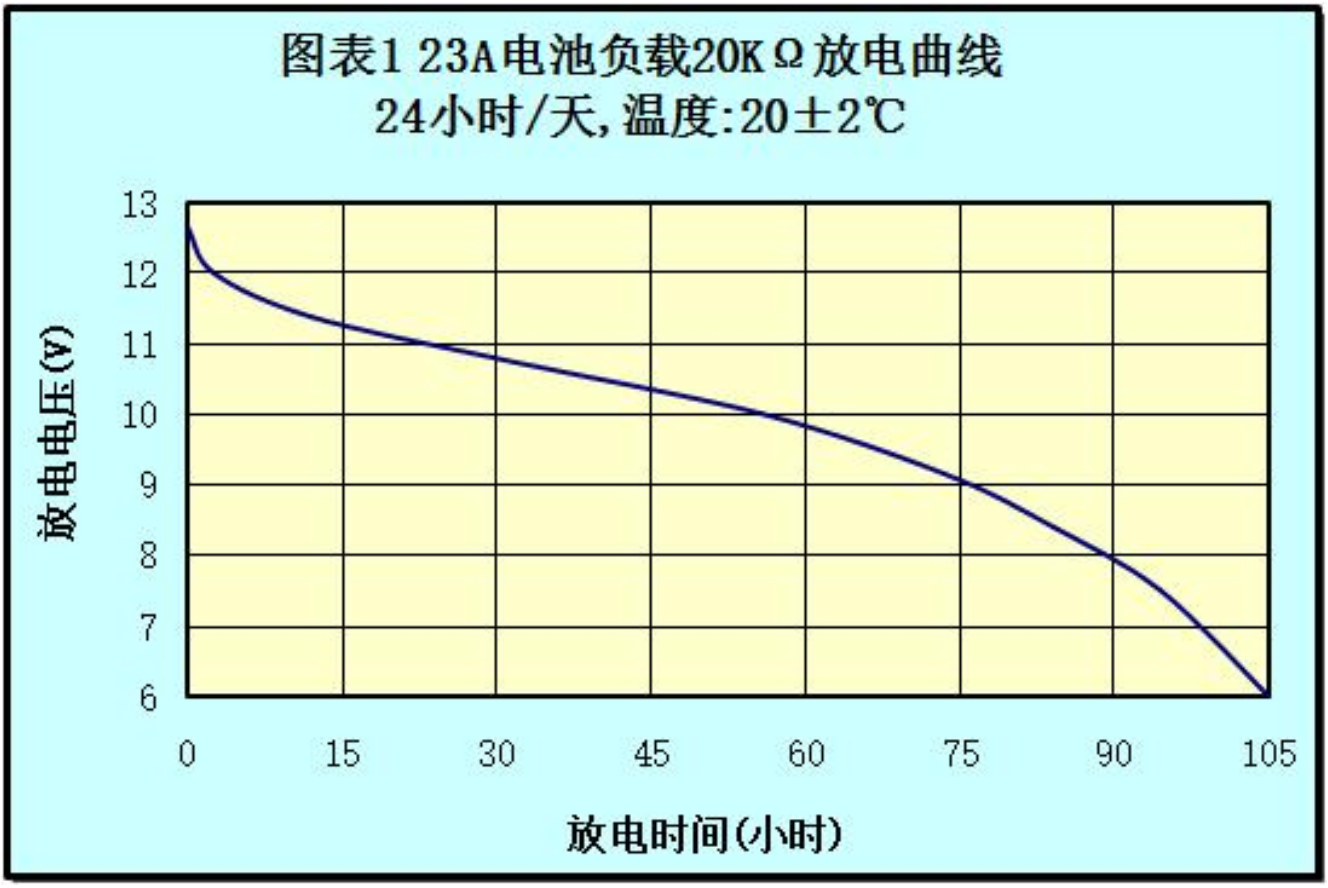
(2) The battery shall be installed with its "+"and "-"in correct position.;

(3) Short circuiting, heating, throwing into fire and disassembling the battery shall not be done.。

11、Discharge Curves: (Condition: Test temperature 20±2℃)

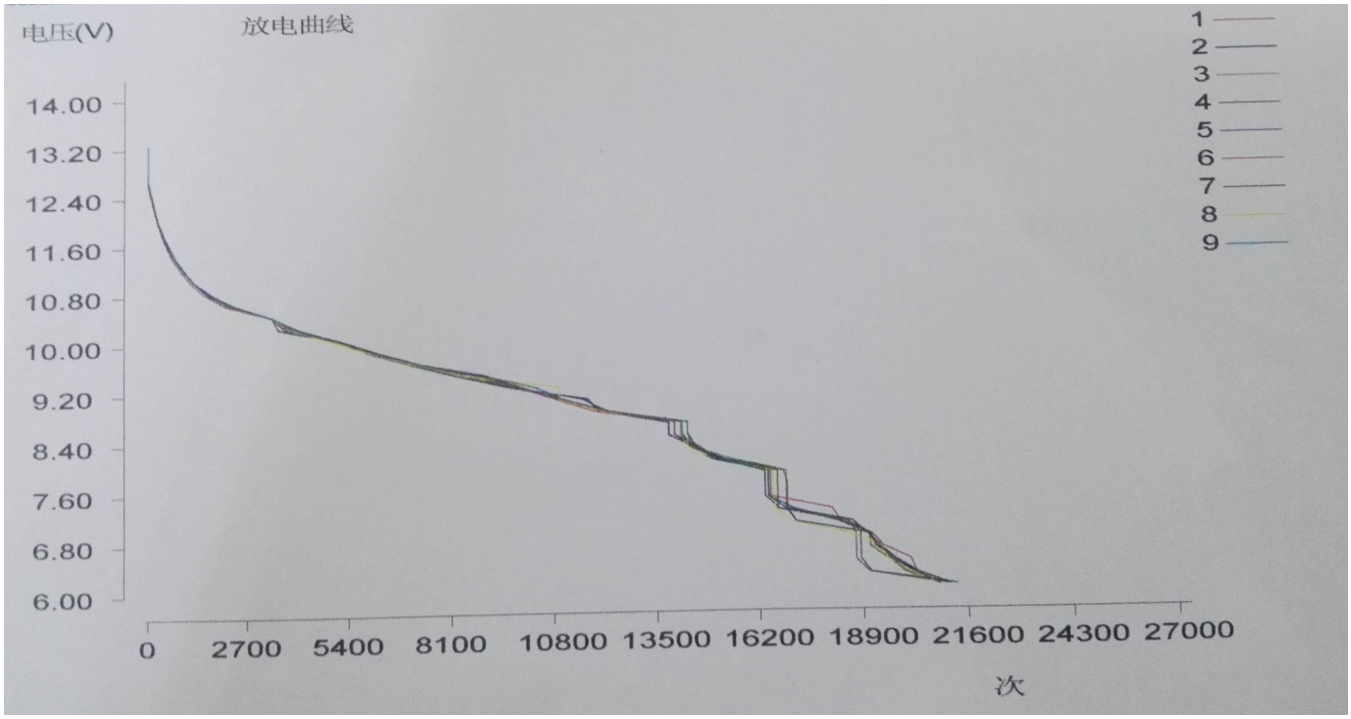
Discharge Method : 20kΩ 24hrs/day / 1kΩ 1S/4S,24h (Figure 1、2)

12、Battery Dimension and construction (Refer Drawing: DWG-A-A23)



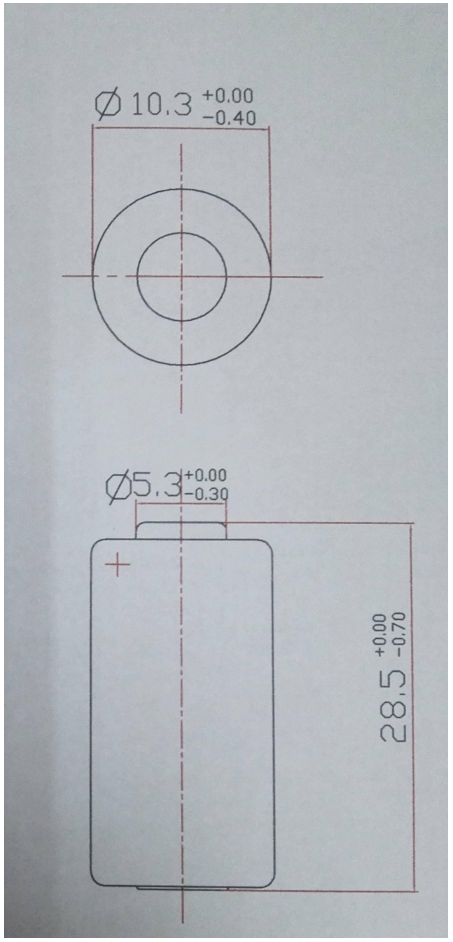
图表 2、23A 电池负载 1KΩ脉冲放电曲线图

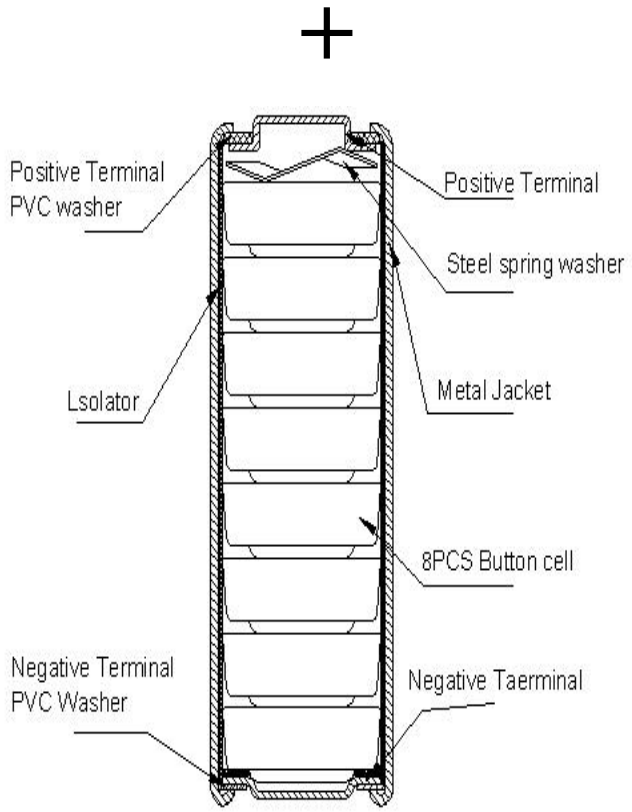
脉冲 1S/4S，24hrs/天，终止 6.0V



Unit: mm

Construction:





SIGNATURE		Date	Shenzhen ALLKEY Battery co., Ltd					
DRAWN			Model	23A Alkaline Battery				
APPD.			No.	DWG—A—A23	Ver.	A	Scale	NTS

Refer Drawing: DWG-A-A23

Technical Specification

AKRef-23A-E