TECHNICAL SPECIFICATION

FOR

ALKALINE MANGANESE DIOXIDE BUTTON CELL

TYPE: LR927

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Guangdong TIANQIU Electronics Technology Co. Ltd.

ADD: 9/F TianQiu Business Building No.16-30, He Yi Rd., San Yuan Li Ave., GuangZhou China

Tel: 8620-36322277 Fax: 8620-36323339 P.C:510410

Website: http://www.tmmq.cn Email: office@tmmq.com

1. Scope

This specification is applicable to the Alkaline Manganese Dioxide Button Cell LR927 supplied by Guangdong TIANQIU Electronics Technology Co. Ltd.

2. Designations

2.1 Defining

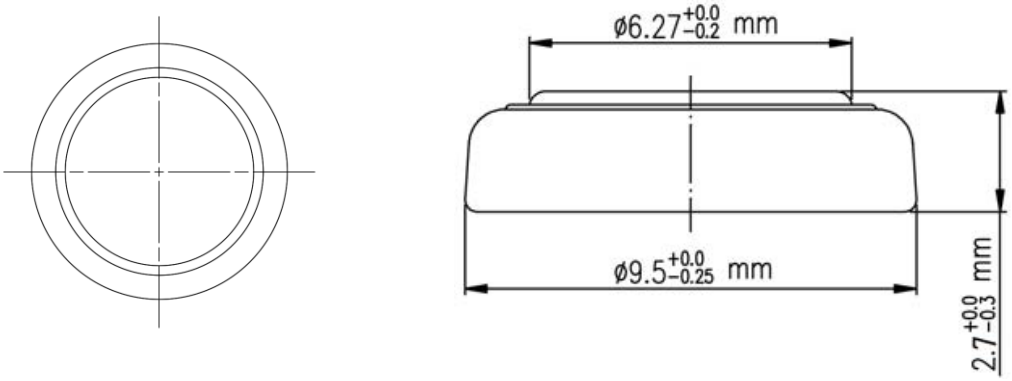
Continuously discharge at 20±2℃ under 6.5kΩ to 0.9V

3. Designations and Dimensions

3.1 Designations：

LR927 Alkaline Zinc-Manganese Dioxide Button Cell

3.2 Dimensions



4. Technical Specifications

Item	Characteristic
Nominal capacity	40mAh
Nominal voltage	1.5V
End point voltage	0.9V
Storage humidity	60±15%RH (no condensate)
Dimensions	maximum height：2.7mm maximum diameter:Φ9.5mm
Approximate weight	0.63g（only for reference）

5. Performance

5.1 Test conditions

Unless otherwise specified, the test conditions shall be, as a general rule, at the temperature of 20±2℃ and the relative humidity of 60±15%.

5.2 Electrical characteristics

NO.	Item	Test condition	Requirement
5.2.1	storage characteristics	Sampling plan：MIL-STD-105E, General Inspection Lever Ⅱ, Single Sampling, AQL=0.4 Remark: Load voltage test method: 22KΩ/0.3S, The initial samples shall be tested within 30 days after delivery	Open Circuit Voltage(V) load voltage(V) Initial： ≥1.55 ≥1.50
5.2.2	Service output	Load resistance:22kΩ; Discharge method:24h/d continuously discharge; End point voltage 0.9V Remark: The initial samples shall be tested within 30 days after delivery.	Initial≥430hrs 12 months @ RT≥387hrs
		Load resistance:6.5kΩ; Discharge method:24h/d continuously discharge; End point voltage 0.9V Remark: The initial samples shall be tested within 30 days after delivery.	Initial≥195hrs 12 months @ RT≥176hrs
5.2.3	Short circuit test	The battery short circuit test in 20±2℃ environment, discharge for 24hrs	No explosion N=5，Ac=0，Re=1.

5.2.2&5.2.3 Acceptance test:

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

2) The average discharging time from each discharging method shall be equal to or greater than the specified figure, and no more than one battery has a service output less than 80% of the specified figure.

3) One retest is allowed to confirm the results if the first test didn't meet the requirements.

5.3 Shelf life

One year after delivery under normal storage conditions. 90% of the initial capacity will be maintained after one year storage.

6. Packing and Marking

Any specific design and packing requirements will be accommodated as required. But as a general, the following markings will be printed, stamped or impressed on the body of the battery:

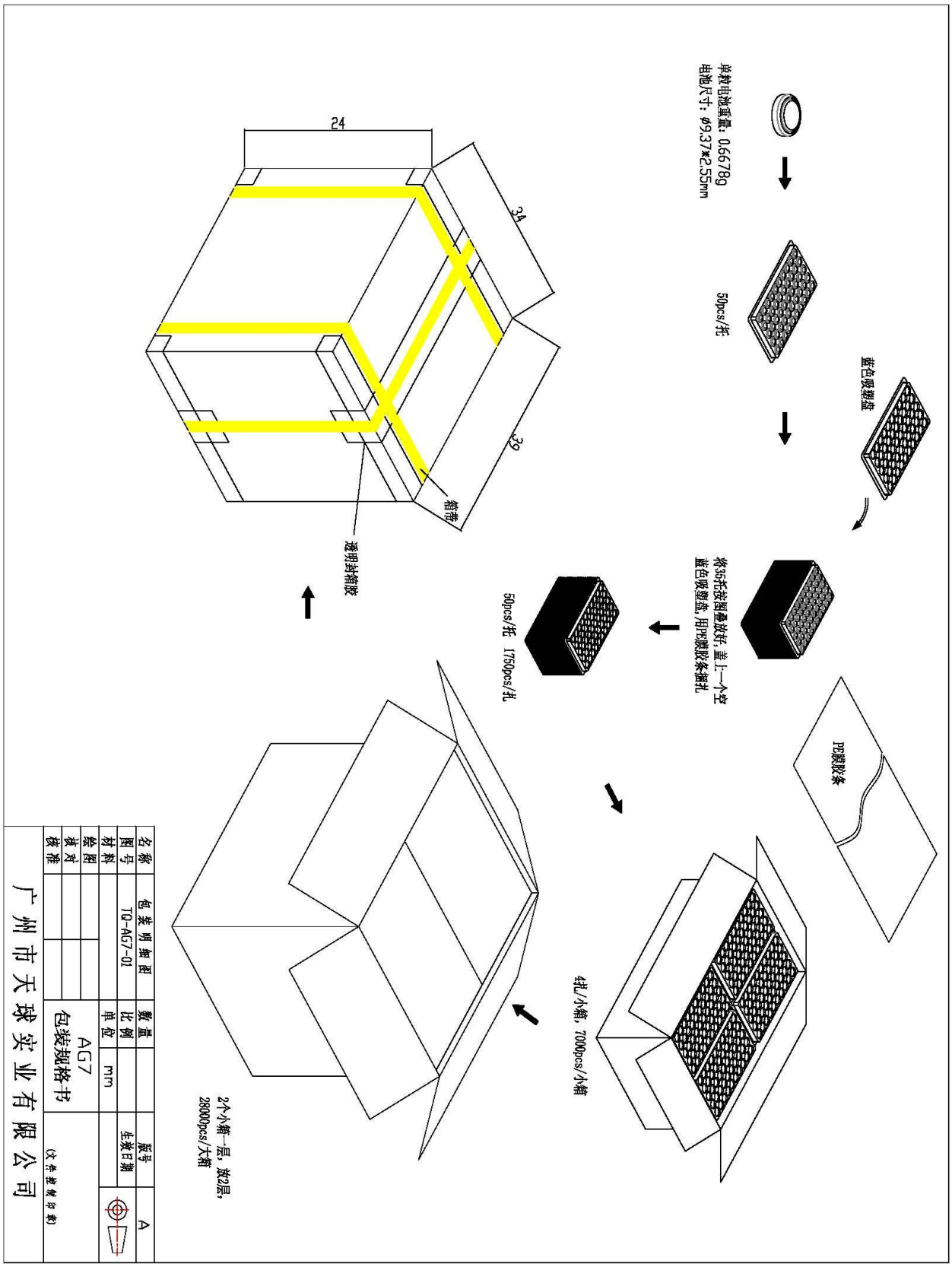
6.1 Marking

1) Designation: LR92.

2) Manufacturer's logo " " and/or its name "TIANQIU".

3) Polarity Marking:" BUTTON CELL + " on the cathode can.

6.2 Packing


单粒电池重量：0.6678g
电池尺寸：ø9.37*2.55mm
50pcs/托
蓝色吸塑盘
将5托按图叠放好，盖上一个空蓝色吸塑盘，用PE膜胶条捆扎
50pcs/托 1750pcs/扎
PE膜胶条
4扎/小箱，7000pcs/小箱
2个小箱一层，放2层，28000pcs/大箱
24
34
39
箱带
透明封箱胶
名称 包装明细图
图号 TQ-AG7-01
材料
公差
技术要求
数量
比例
单位 mm
AG7 包装规格书
版号 A
生效日期
广州市天球实业有限公司

7. Caution for Use

1) Since the battery is not designed to be charged, 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 “-” polarity in correct position, otherwise may cause the battery to be charged or over-discharged.

3) Short-circuiting, heating, disposing of in fire and disassembling the battery are prohibited.

4) Battery cannot be forced discharge, which lead to excess internal gas generation and, may result in bulging, leakage and explosion.

5) New and used batteries cannot be mix used at the same time, when replaced batteries, it is recommend to replace all and with the same brand type.

6) Exhausted batteries should be removed from compartment to prevent over-discharge, which cause leakage and damage to the device.

7) Direct soldering is not allowed, which will damage the battery.

8) Keep the battery out of the reach of children to prevent swallow, in case of accident should contact physician at once.

9) The battery should not be dismantled and deformed.

caution：

- If a battery is leakage and materials contact eyes, flush immediately with running water for at least 15 minutes. Consult an ophthalmologist at once.
- If battery emits an odor, fever, discoloration, deformation or any abnormal phenomena appeared in the process of use/storage, removed the battery immediately from the device and dispose of the battery.

8. Referenced Standards

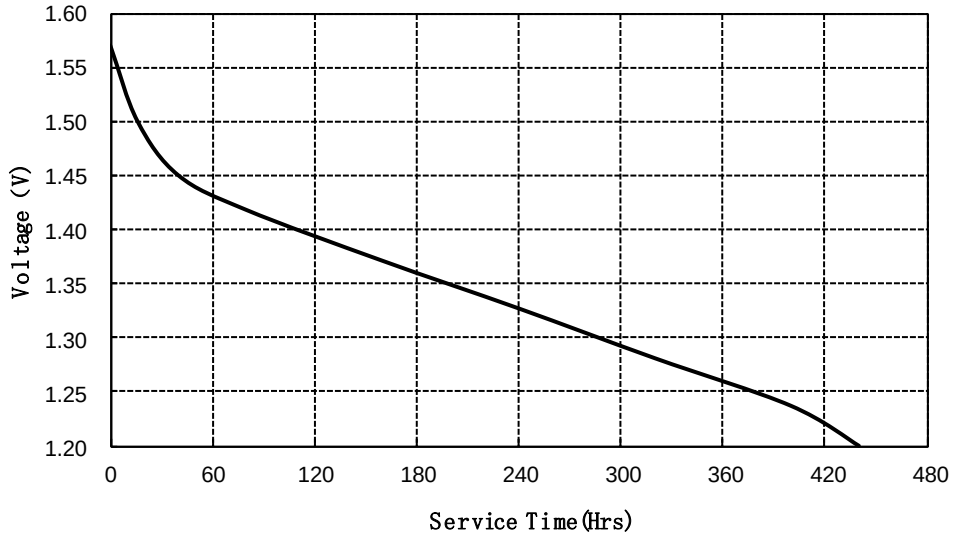
IEC 60086-1:2015 –Primary Batteries –Part 1: General

IEC 60086-2:2015 –Primary Batteries –Part 2: Physical and electrical specifications

IEC 60086-3:2016 –Primary Batteries –Part 3: Watch batteries

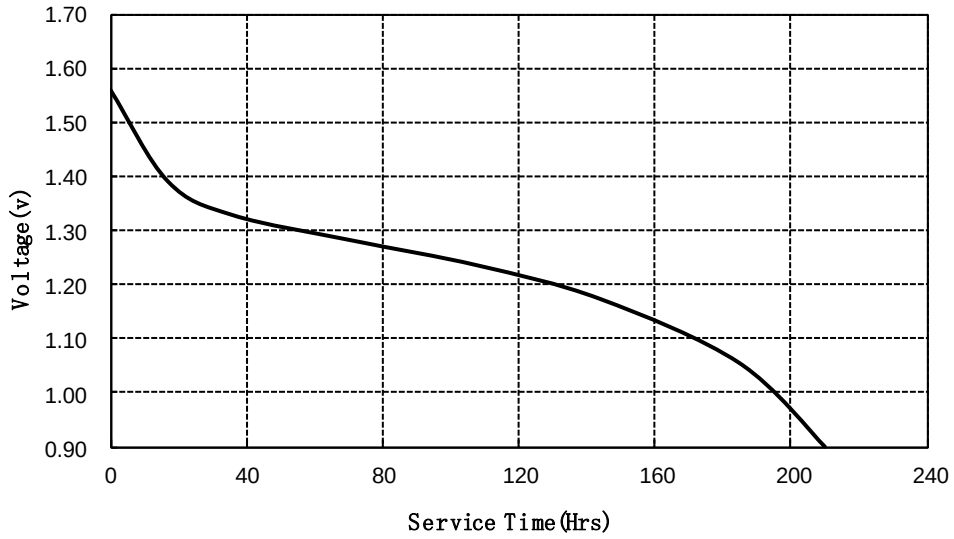
IEC 60086-5:2016 –Primary Batteries –Part 5: Safety of batteries with aqueous electrolyte

9. Discharge Curves



Discharge method: 22kΩ, 24hours/day, E.V. 0.9V

Temperature: 20±2℃



Discharge method: 6.5kΩ, 24hours/day, E.V. 0.9V

Temperature: 20±2℃