

# APPROVAL SHEET

MESSRS	
BRAND	akyga battery
PRODUCT	3.0V LITHIUM-MANGANESE BUTTON CELL
MODEL	CR2025
PREPARED BY	
APPROVED BY	
DATE	MAY 10, 2019

CUSTOMER APPROVAL RECORD			
COMPANY NAME	DEPART- MENT	APPROVED BY	DATE



#### 1. **[SCOPE]**

This specification applies to the following 3.0v lithium button cell CR2025 (high capacity of 150mAh) m

## 2. **[RATINGS]**

#### TABLE I:

ITEM		UNIT	SPECIFICATIONS	CONDITIONS	
Nominal voltage		V	3.0		
Nominal capacity		mAh	150	Standard discharge with load 15kΩ	
Instantaneous short–circuit current		mA	≥250	Time≪0.5 second	
Off-load voltage		V	≥3.20		
Operating temperature		°C	-20~60		
Standard weight		g	2.5	Unit cell	
Service output	Initial	Standard	840 h	Continuous discharge with load 15kΩ, till 2.0v end-voltage at 20~25℃	
	After 12 months storage	Standard	790 h		

#### TABLE II:

ITEM	CONDITIONS	CHARACTERISTICS	
Thermal durability	Kept for 20 days at $60^{\circ}C\pm3^{\circ}C$ , then continuously discharge with $15k\Omega$ load till 2.0v end-voltage	Standard	790 h
Self-discharge rate	Stored for 12 months at normal temperature and humidity	≤5%	

#### 3. **[PERFORMANCE AND TEST METHODS]**

Unless otherwise stated, all the testing is carried out under the condition: environmental temperature,  $20^{\circ}$ C~ $25^{\circ}$ C; environmental humidity,  $65\pm20\%$ . Please refer to Table III

#### 4. **[SUGGESTIONS AND CAUTIONS]**

- 4.1 Install batteries correctly.
- 4.2 Ensure the contact points to be clean and conductive.
- 4.3 Do not mix different types, different brands batteries to serve together.
- 4.4 Do not heat, recharge the batteries.
- 4.5 Do not dispose of the batteries in fire.
- 4.6 Keep away from the small children, if swallowed promptly see doctor.
- 4.7 Pay attention to the producing date.

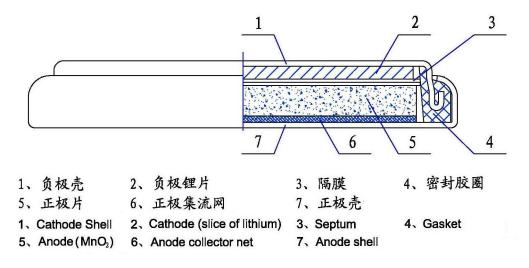


LE II	I:			
No	ITEM	TEST METHODS	STANDARED	
1	Dimensions	Using vernier caliper (accuracy≥0.02) while	Diameter	20.0 (-0.20) mm
I		avoiding short-circuit	Height	2.5(-0.20) mm
2	Off-load voltage	Using multimeter (accuracy $\geq$ 0.25%) internal resistance $\geq$ 1M $\Omega$	≥3.20v	
3	Instantaneous short-circuit current	Time of short-circuit should be less than 0.5 second and avoid repeated test within half an hour	≥250 mA	
4	Appearance	Eyeballing	Bright, clean, no rust, no leakage, And no flaw	
5	Capacity	Continuously discharge for 8 hours with load $15k\Omega$ , temperature at 20~25°C, humidity at $65\pm20\%$ till 2.0v end-voltage (for fresh battery only; within 3 months)	≥840 h	
6	Vibration test	Put battery on the platform of the vibrations machine, start the machine and adjust the frequency form 10 times per minute to 15 times per minute. keep it running for an hour	Characteristics keep stability	
7	Leakage at high temperature test	Stored under temperature (60°C) for 7 days	No leakage allowed	
8	Over discharge Test	After 2.0v end-voltage, continuously discharged for 5 hours	No lea	kage allowed

### 5. **CUTAWAY DIAGRAM OF 3.0V LITHIUM MANGANESE DIOXIDE BUTTON CELL**

## 3.0V锂—二氧化锰扣式电池剖面图

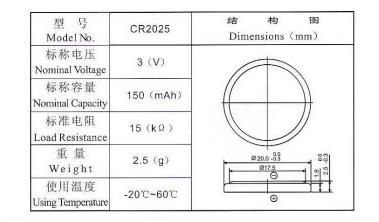
#### Cutaway Diagram of 3.0V Lithium Manganese Dioxide Button Cell





#### 6. [DISCHARGE CHARACTERISTICS]

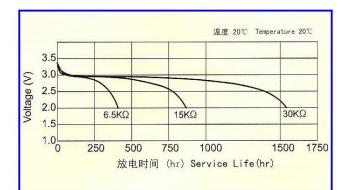
规格参数 SPECIFICATIONS



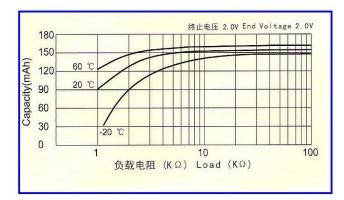
#### 标准曲线 STANDARD CHARACTERISTICS

**CR2025** 

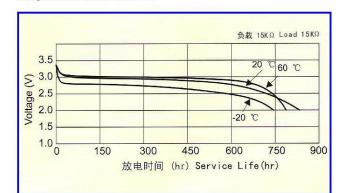
定电阻放电曲线 Discharge Characteristics



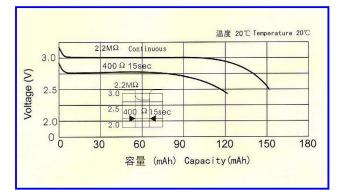




温度放电曲线 Temperature Characteristics









## Specification Approval sheet

