



WAMA ELECTRONICS TECH CO.,LTD

1. 【SCOPE】

This specification applies to the following 3.0v lithium button cell CR2450 made by WAMA ELECTRONICS TECH CO.,LTD

2. 【RATINGS】

TABLE I :

ITEM		UNIT	SPECIFICATIONS	CONDITIONS
Nominal voltage		V	3.0	
Nominal capacity		mAh	550	Standard discharge with load 7.5kΩ
Instantaneous short-circuit current		mA	≥250	Time≤0.5 second
Off-load voltage		V	≥3.20	
Operating temperature		°C	-20~60	
Standard weight		g	6.2	Unit cell
Service output	Initial	Standard	1550 h	Continuous discharge with load 7.5kΩ, till 2.0v end-voltage at 20~25°C
	After 12 months storage	Standard	1465 h	

TABLE II :

ITEM	CONDITIONS	CHARACTERISTICS	
Thermal durability	Kept for 10 days at 50 °C ±3 °C , then continuously discharge with 7.5kΩ load till 2.0v end-voltage	Standard	1465 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°C ~25°C; environmental humidity, 65±20%. 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.

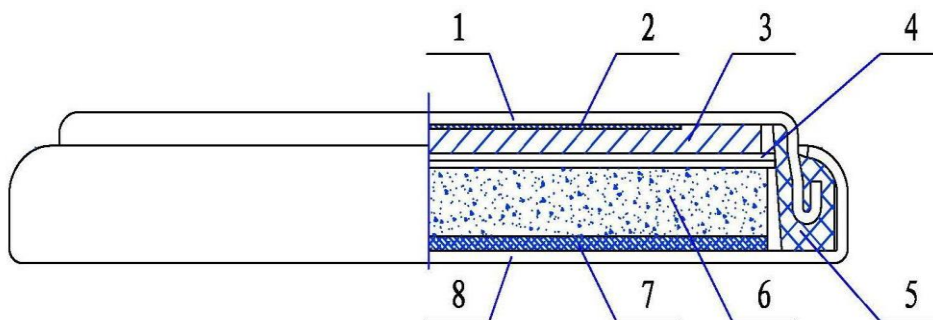
TABLE III:

No	ITEM	TEST METHODS	STANDARD	
1	Dimensions	Using vernier caliper (accuracy ≥ 0.02) while avoiding short-circuit	Diameter	24.5 (-0.20) mm
			Height	5.0 (-0.20) mm
2	Off-load voltage	Using multimeter (accuracy $\geq 0.25\%$) internal resistance $\geq 1M\Omega$	$\geq 3.20v$	
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 with load 7.5k Ω , temperature at 20~25 $^{\circ}C$, humidity at 65 \pm 20% till 2.0v end-voltage (for fresh battery only: within 3 months)	≥ 1550 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 $^{\circ}C$) for 7 days	No leakage allowed	
8	Over discharge Test	After 2.0v end-voltage, continuously discharged for 5 hours	No leakage allowed	

5. 【CUTAWAY DIAGRAM OF 3.0V LITHIUM MANGANESE DIOXIDE BUTTON CELL】

3.0V 鋰—二氧化錳扣式電池剖面圖

Cutaway Diagram of 3.0V Lithium Manganese Dioxide Button Cell



- | | | | |
|-----------------|-----------------------------|------------------------------|---------------|
| 1、负极壳 | 2、负极集流网 | 3、负极锂片 | 4、隔膜 |
| 5、密封胶圈 | 6、正极片 | 7、正极集流网 | 8、正极壳 |
| 1、Cathode Shell | 2、Cathode collector net | 3、Cathode (slice of lithium) | 4、Septum |
| 5、Gasket | 6、Anode(MnO ₂) | 7、Anode collector net | 8、Anode shell |



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规格参数 SPECIFICATIONS

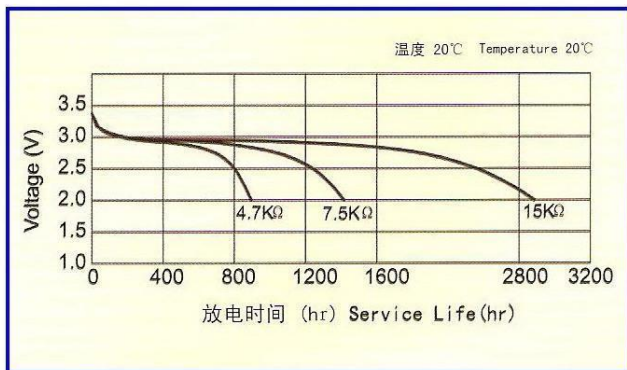


型号 Model No.	CR2450	结构图 Dimensions (mm)
标称电压 Nominal Voltage	3 (V)	
标称容量 Nominal Capacity	550 (mAh)	
标准电阻 Load Resistance	7.5 (k Ω)	
重量 Weight	6.2 (g)	
使用温度 Using Temperature	-20 $^{\circ}$ C~60 $^{\circ}$ C	

标准曲线 STANDARD CHARACTERISTICS

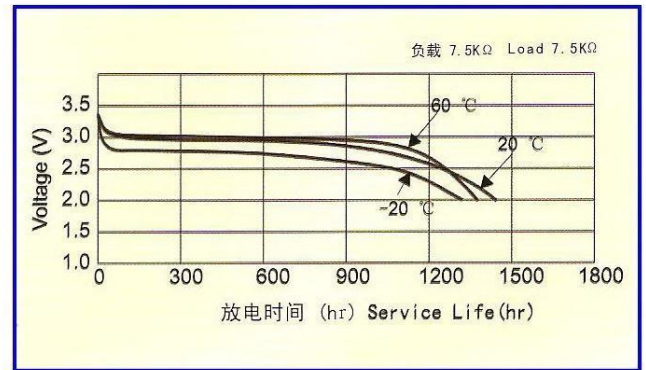
定电阻放电曲线

Discharge Characteristics



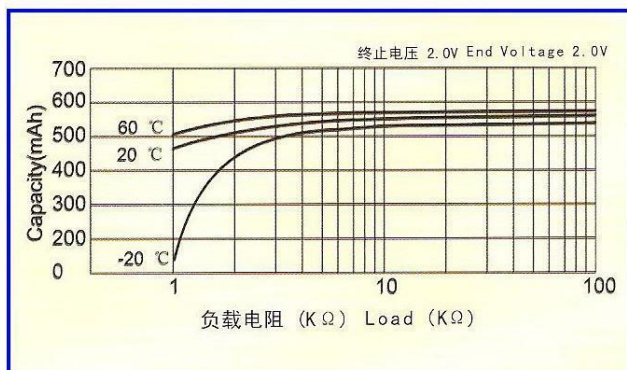
温度放电曲线

Temperature Characteristics



电阻容量曲线

Load-capacity



脉冲放电曲线

Pulse Discharge Characteristics

