

Ver. Af

NO:

CR2477 Battery Spec

电池规格书

Model:	CR2477	
Nominal Voltage:	3.0V	
Capacity:	950mAh	

Draft	To examine	Approved	Customer Confirmation
起草	审核	批准	客户确认
Peter			

CT-CR2477 Battery Spec Rev: A0 page 1 of 6



Ver: A0

NO:

1. 【SCOPE】

This specification applies to the following 3.0v lithium button cell CR2477 made by Power Xtra.

2. [RATINGS]

TABLE I:

ITEM		UNIT	SPECIFICATIONS	CONDITIONS	
Nominal voltage		V	3.0		
Nominal capacity		mAh	950	Standard discharge with load 7.5kΩ	
Instantaneous short–circuit current		mA	≥350	Time≤0.5 second	
Off-load voltage		V	$3.25\sim 3.45$		
Operating temperature		$^{\circ}$	-20~60		
Standard weight		g	~8.5	Unit cell	
Service output	Initial	Standard	≥950h	Continuous discharge with load 3.0k Ω , till 2.0v end-voltage at $20\pm2^{\circ}\mathrm{C}$	
	After 12 months storage	Standard	≥931 h		

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

Unless otherwise stated, all the testing is carried out under the condition: environmental temperature, $20^{\circ}\text{C} \sim 25^{\circ}\text{C}$; environmental humidity, $65 \pm 15\%$. 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.

CT-CR2477 Battery Spec Rev: A0 page 2 of 6



Ver: A0

NO:

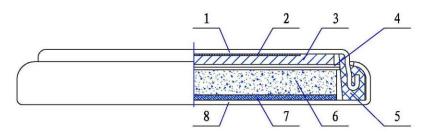
TABLE III:

No	ITEM	TEST METHODS	STANDARED	
1 Dimensions	Using vernier caliper (accuracy≥0.02) while	Diameter	24.5 (-0.20) mm	
	avoiding short-circuit	Height	7.7 (-0.20) mm	
2	Off-load voltage	Using multimeter (accuracy \geqslant 0.25%) internal resistance \geqslant 1M Ω	3. 25-3. 45V	
3	Instantaneous short-circuit current	Time of short-circuit should be less than 0.5 second and avoid repeated test within half an hour	≥350 mA	
4	Appearance	Eyeballing	Bright, clean, no rust, no leakage, And no flaw	
5	Capacity	Continuously discharge with load $4.7k\Omega$, temperature at $20~25^{\circ}\mathrm{C}$, humidity at $65\pm20\%$ till 2.0v end-voltage (for fresh battery only: within 3 months)	≥1332 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 (50°C) for 10 days	No leakage allowed	
8	Over discharge Test	After 2.0v end-voltage, continuously discharged for 5 hours	No leakage allowed	

[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



- 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

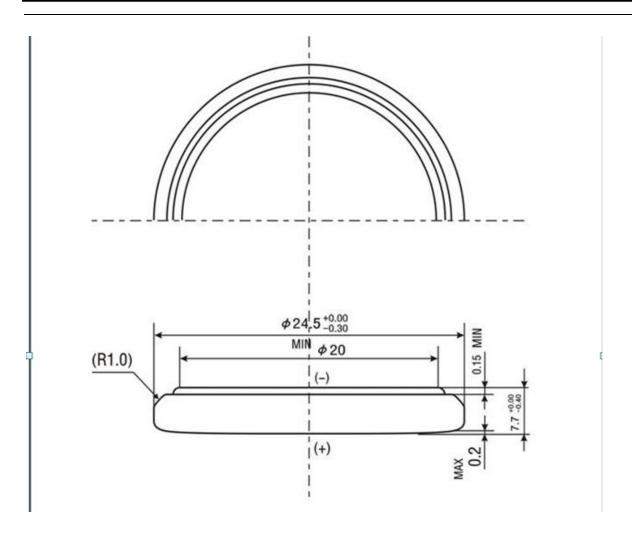
- 1. Cathode Shell 2. Cathode collector net
- 3. Cathode (slice of lithium) 4. Septum

- 5、Gasket
- 6、Anode(MnO₂)
- 7. Anode collector net
- 8, Anode shell



Ver: A0

NO:





Ver: A0

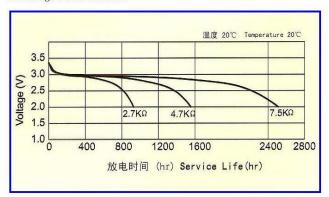
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6. [DISCHARGE CHARACTERISTICS]

标准曲线 STANDARD CHARACTERISTICS

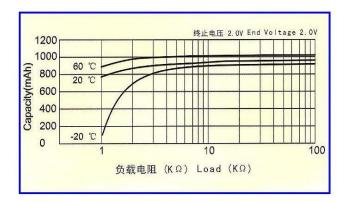
定电阴放电曲线

Discharge Characteristics



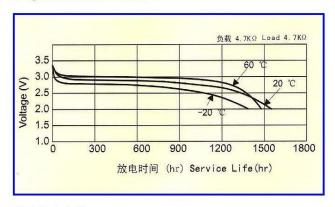
电阻容量曲线

Load-capacity



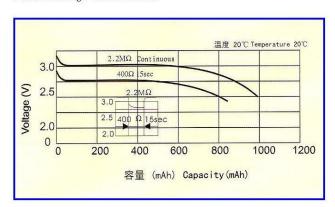
温度放电曲线

Temperature Characteristics



脉冲放电曲线

Pulse Discharge Characteristics



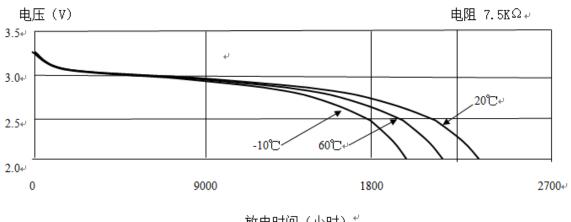
CT-CR2477 Battery Spec Rev: A0 page 5 of 6



Ver: A0

NO:

电阻放电曲线 (Discharge characteristics on load) →



放电时间 (小时) ゼ

7. DRAWING



CT-CR2477 Battery Spec Rev: A0 page 6 of 6