
1. [SCOPE]

This specification applies to the following 3.0v lithium button cell CR2016.

2. [RATINGS]

TABLE I:

| ITEM | | UNIT | SPECIFICATIONS | CONDITIONS |
|-------------------------------------|-------------------------|--------------------|----------------|---|
| Nominal voltage | | V | 3.0 | Standard discharge |
| Nominal capacity | | mAh | 75 | Standard discharge |
| Instantaneous short-circuit current | | mA | ≥ 300 | Time ≤ 0.5 second |
| Off-load voltage | | V | ≥ 3.20 | Unit cell |
| Storage temperature | | $^{\circ}\text{C}$ | 0-35 | |
| Standard weight | | g | 1.8 | Unit cell |
| Service output | Initial | h | 75 | Continuous discharge with load $3\text{ k } \Omega$, till 2.0v end-voltage at $20\text{-}25^{\circ}\text{C}$ |
| | After 12 months storage | h | 73.5 | |

TABLE II:

| ITEM | CONDITIONS | CHARACTERISTICS |
|---------------------|--|----------------------|
| Self-discharge rate | Stored for 12 months at normal temperature, then continuously discharged with $30\text{ k } \Omega$ load till 2.0v end-voltage | Less than $\leq 2\%$ |

3. [PERFORMANCE AND TEST METHODS]

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

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 swallow promptly see doctor
- 4.7 Pay attention to the producing date

TABLEIII:

| NO | ITEM | TEST METHODS | STANDARED | |
|----|-------------------------------------|---|---|---------------|
| 1 | Dimensions | Using vernier caliper(accuracy ≥ 0.02) while avoiding short-circuit | Diameter | 20.0(-0.15)mm |
| | | | Height | 1.60(-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 | $\geq 300mA$ | |
| 4 | Appearance | Eyeballing | Bright, clean, no rust, no leakage, and no flaw | |
| 5 | Capacity | Continuously discharge for 8 hour with load $3k\Omega$, temperature at $20-25^{\circ}C$, humidity at $65 \pm 20\%$ till 2.0v end-voltage(for fresh battery only: within 3 months) | $\geq 75h$ | |
| 6 | Vibrationtest | 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 | Stored under temperature($45^{\circ}C$)for 30 days | Leakage rate $\leq 0.5\%$ | |
| 8 | Over Discharge Test | After 2.0v end-voltage, continuously discharged for 5 hours | No leakage allowed | |

5. [DISCHARGE CHARACTERISTICS]

With load $3.0\text{ k}\Omega$ (CR2016)

Voltage (V)

