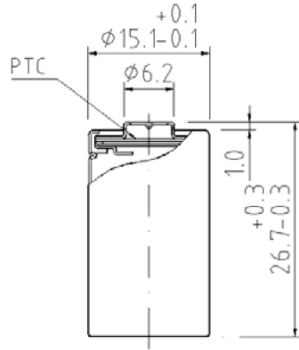


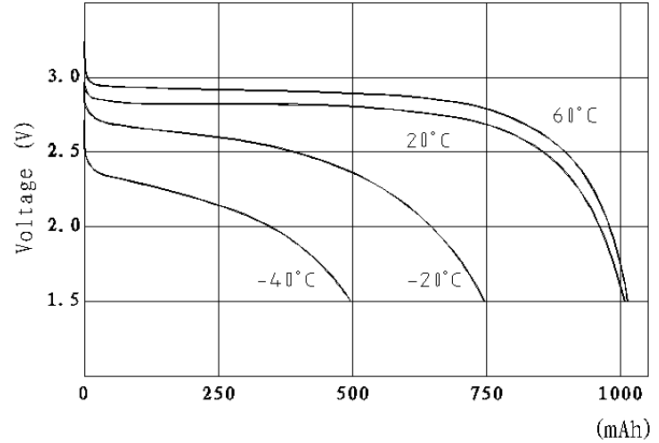


SPECIFICATIONS CR2

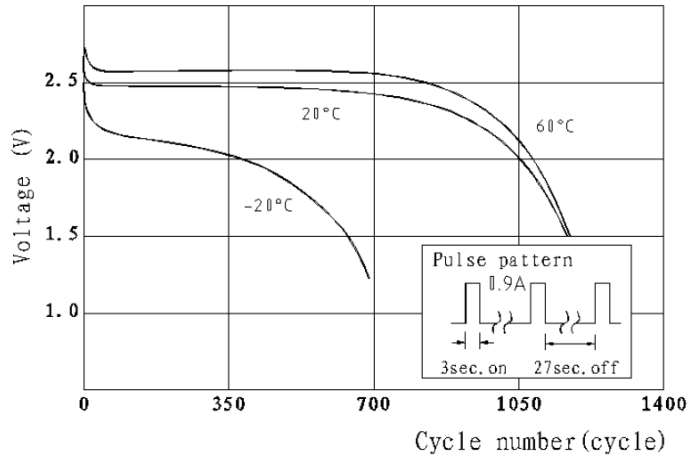
LITHIUM BATTERY



Temperature characteristics(20mA)

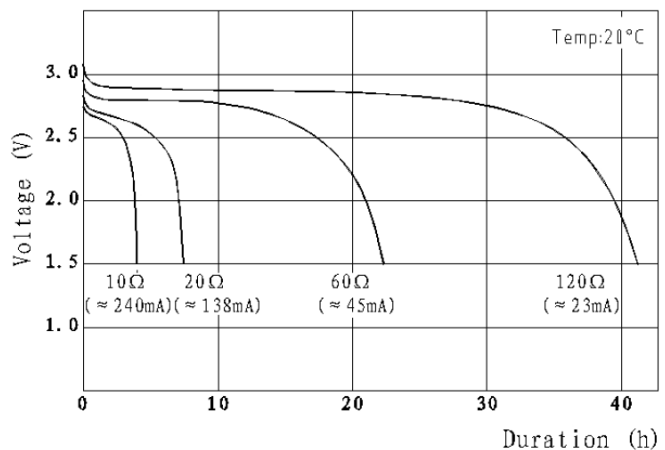


Pulse discharge characteristics



Model	CR2
Nominal Voltage	3V
Nominal Capacity	1000mAh
Continuous standard load	20mA
Dimension	$\Phi 15.1 \times 26.7\text{mm}$
Weight	10.2g
Temperature range	-40~60°C

Typical discharge characteristics





SPECIFICATIONS CR2

1. Model Number : CR-2
2. Nominal Voltage : 3 V
3. Nominal Capacity : 1000 mAh
(Nominal capacity is based on standard drain and cutoff Voltage down to 2.0V at $25\pm 5^{\circ}\text{C}$)
4. Standard Discharge Current : 20 mA
5. Max. Continuous Discharge Current : 1000 mA
6. Construction
 - 6.1 Appearance, Dimensions : There shall be no noticeable deformation. The dimensions shall be according to the attached drawings.
 - 6.2 Weight : Approx. 10.2g
7. Performance
 - 7.1 Open Circuit Voltage : Min. 3 V
 - 7.2 Duration 1. (at $20\pm 2^{\circ}\text{C}$)
 - 7.2.1 Pulse Discharge Conditions : Population Mean ≥ 1100 cycles
 - Pulse Current : 900 mA
 - One Cycle : 3 seconds on, 27 seconds off
 - Cut Off V. : 1.55 V
 - 7.3 Duration 2. (at $-20\pm 2^{\circ}\text{C}$)
 - 7.3.1 Pulse Discharge Conditions : Population Mean ≥ 600 cycles
 - Pulse Current : 900 mA
 - One Cycle : 3 seconds on, 27 seconds off
 - Cut off V. : 1.2 V
 - 7.4 Temperature Range : Discharge -40 to 60°C
Storage -40 to 75°C
 - 7.5 Leakage Resistance : The battery shall not show leakage or salting which harms performance.
8. PTC (Positive Temperature Coefficient) Device Performance
 - 8.1 Appearance : There shall be no noticeable deformation and/or scratches.
 - 8.2 Resistance : The resistance shall be between 10 to 70 $\text{m}\Omega$ (no load).
When 5 A flows, the resistance shall be more than 10 Ω before 80 seconds.
9. Test Conditions, Measuring Instruments and Measuring Methods
 - 9.1 Test Conditions : If not otherwise specified,
 - Temperature : $25\pm 5^{\circ}\text{C}$
 - Humidity : $65\pm 10\%$



SPECIFICATIONS CR2

9.2 Measuring Instruments

- i) Volt Meter : Internal Impedance : More than $1M\Omega$
Accuracy : Less than 0.25%
- ii) Caliper : Accuracy ; less than 0.25%
- iii) Balance : Sensitivity ; More than 100 mg

9.3 Measuring Method

- i) Outer Dimensions : This shall be measured with the caliper described in Item 9.2 ii).
- ii) Weight : This shall be measured with the balance described in Item 9.2 iii).
- iii) Appearance : Deformation or tarnish shall be visually checked.
- iv) Open Circuit Voltage : This shall be measured with the volt meter described in Item 9.2 i).
- v) Operating Time (Duration) : Operating time shall be measured with cycles until terminal voltage reaches the specified cut-off voltage.
- vi) Vibration Resistance : Amplitude ; 2 mm
Number of Vibrations : 1000 rpm.
Directions ; X, Y, Z
Time ; 30 minutes in each direction
- vii) Leakage Resistance : Heat cycle test
Leakage, appearance and outer dimensions shall be checked after 10 cycles according to MIL-STD-202E-106D.
The battery shall be kept in a dry place. It should not show any dew point when stored in this condition.

10. Precautions for use

- 1) A battery shall not be stored at temperatures in excess of 45°C . Storage at less than 30°C is recommended. Storage at less than -40°C can deform the plastic parts and may cause a leakage. To prevent self-discharge caused by corrosion, or decrease of insulation, humidity during storage shall be less than 70%.
- 2) The battery has an explosion resistant construction. But the following cautions should be taken. because combustible materials such as lithium metal and organic electrolyte are contained in the battery.
 - * Do not short circuit.
 - * Do not dispose in fire.
 - * Do not charge.
 - * Do not disassemble.
- 3) Keep away from heat source of flame.
- 4) The battery shall not be washed by ultrasonic wave washer.