LITHIUM / THIONYL CHLORIDE
Energy Type (Button)

ER2450

BRIEF SPECIFICATION

Model: ER2450
Nominal Voltage: 3.6V
Nominal Capacity: 500mAh
Weight: About 9g
ISO9001 Certified
UL Certified MH20555
Manufacturer: EEMB Co., Ltd.
Website: http://eemb.com

STANDARD SPECIFICATION

1. SUBJECT

This specification presents typical and guaranteed ex-work values of the Lithium / Thionyl Chloride Cylindrical battery, of Model ER2450.

Lithium / Thionyl Cylindrical battery (Li-Thionyl) is used for the active cathode material, and high voltage, high activity lithium metal for the anode material.

2. GENERAL SPECIFICATION

(Typical values relative to cells stored for one year or less at + 30℃ max.)

2.1 Model:		ER2450
2.2 Nominal Voltage:		3.6 Volts
2.3 Open circuit voltage:		3.66 Volts
2.4 Capacity:	(@0.5mA Discharge Current to 2.0V Cut-off, +25°C)	500mAh
2.5 Standard Discharge Current:		0.5mA
2.6 Maximum recommended current under continuous discharge: (Discharge to 2.0 V at 25℃, to 50 ％of nominal capacity)		8mA
2.7 Maximum recommended current under pulse discharge: (At 25 ℃, based on 20μA, battery with 50% discharge depth of 0.5mA is discharged with 20mA current, and 0.1 seconds / 2 minute pulse. If the battery voltage is not less than 2.7V, the voltage value will change with the pulse characteristics, temperature and the change of the battery before use.))		20mA
2.8 Operational temperature range:		-55°C ~ +125°C
2.9 Nominal Weight:		Approx. 9g

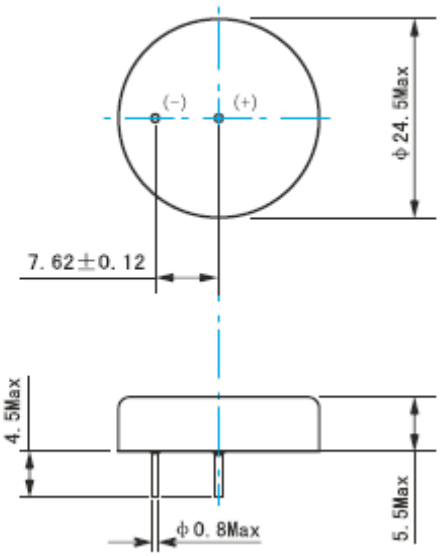
3. MAIN FEATURES

Stable high operating voltage
Long storage life (self-discharge rate is less than 1% at 25℃)
Long shelf life
High energy density
Wide operating temperature range
Stainless steel package, cover
Air tightness ensurance below ＋125℃
Non-flammable electrolyte
Meet IEC86-4 safety criteria
No transporting restrictions

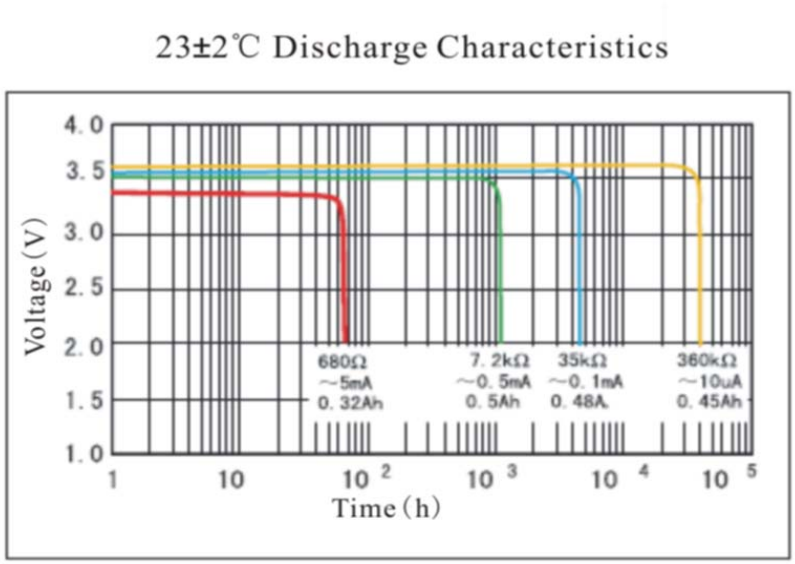
4. MAIN APPLICATIONS

Tire pressure monitoring system (TPMS)
Alarm \Safety Equipment
Memory backup power
GPS Tracking Device
Automobile electronics
Professional electronic equipment
Real-time Clock

5. UNTAGGED BATTERY DIMENSIONS (unit: mm)

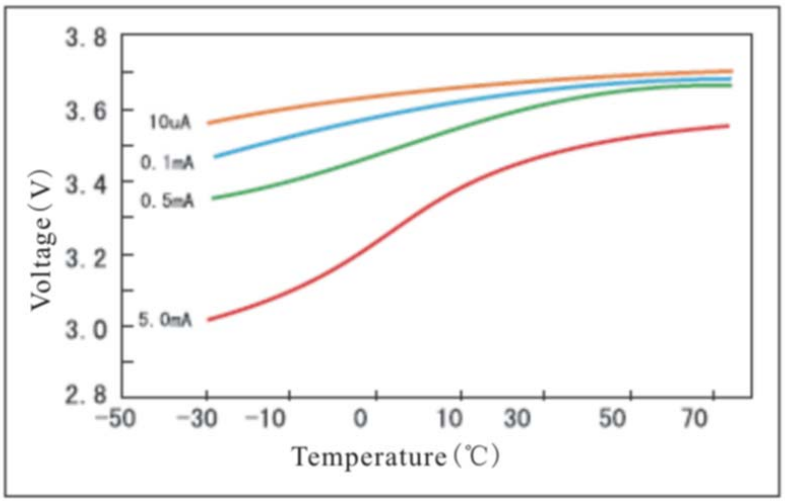


6. CURVE

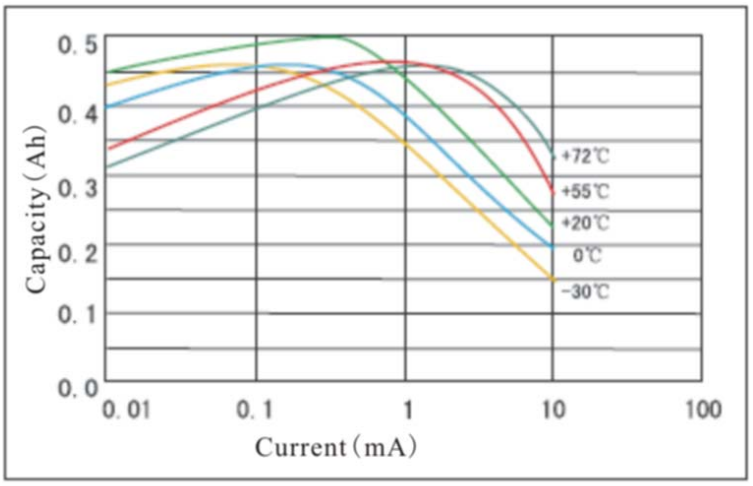


Note: Any representations in this brochure concerning performance, are for informational purposes only and are not construed as warranties either expressed or implied, of future performance.

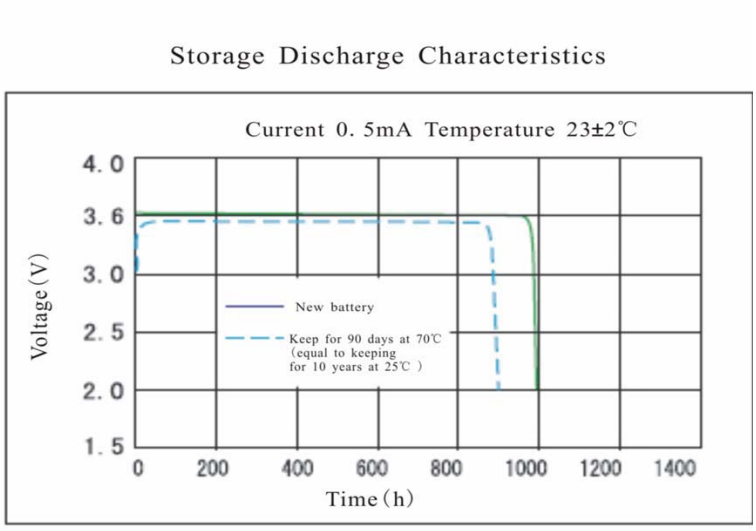
Voltage and Temperature Relationship Curve



Capacity and Current Relationship Curve



Note: Any representations in this brochure concerning performance, are for informational purposes only and are not construed as warranties either expressed or implied, of future performance.



7. STORAGE

It should be kept in clean, dry, cool place (it is best to keep in temperature of ＋20℃ or much lower, with maximum temperature not beyond ＋30℃).

8. WARNINGS

Do not charge, shock, dissect, immerse into water or heat above 125 ℃, or it is likely to cause explosion, fire and hazardous material leakage. Dead battery can not be thrown away casually, it is suggested to be buried deeply.

9. PRECAUTIONS IN USING

- To use these batteries efficiently, strictly observe the following precautions.
- Use Nickel-plated iron or stainless steel for the terminals that contact the battery.
- Make sure that terminal contact pressure is 50g minimum, for a stable contact.
- Keep the battery and contact terminal surfaces clean and free from moisture and foreign matter.
- Before inserting the battery, check the battery contact terminals to make sure they are normal, not bent or damaged. (Bent terminals may not make good contact with the battery or may cause it to short circuit.)
- When the batteries are piled up in a disorderly way, their positive and negative terminals may short-circuit, consuming some batteries while charging others, causing them to explode.
- Lithium batteries that are almost exhausted can output a voltage that is almost the same as that of a new battery: Please does not judge a battery only with a Voltmeter. Avoid using a mixture of old and new batteries; replace all batteries in a set with new one.
- Lithium batteries require a period of time to reach their normal voltage again after even a slight short circuit. Therefore, should the battery is short-circuited, wait an adequate long time for batteries to recover before measuring their electrical characteristics.
- Use a high impedance (1M or higher) voltmeter to measure battery voltage.
- Battery characteristics vary with type and grade, even when batteries are the same size and shape. When

replacing batteries with new ones, be sure to carefully check the symbols and numbers on them.

10. STORAGE AND MOUNT

The battery should be preferably stored in dry and cool conditions. Storage at high temperature must be avoided to preserve the battery life time.

11. SAFETY

Battery Handing Precautions to Ensure Complete Safety

Lithium batteries contain inflammable materials, such as lithium and organic solvents. Improper battery handing, particularly during transit and storage, may cause heating, explosions and fires.

Please strictly observe the precautions below in handing lithium batteries.

WARNING!

1. DO NOT recharge, short-circuit, disassemble, deform, heat or place the battery near a direct flame. This battery contains flammable materials such as lithium and organic solvent and performing any of the above actions could cause it to ignite explode or become damaged.
2. Keep this battery out of the reach of children. If it is swallowed, contact a physician immediately.
3. When storing the battery or throwing it away, be sure to cover it with tape. If the battery comes into contact with other metal objects, it could ignite or become damaged.

CAUTION!

Closely observe the following precautions. If the battery is used incorrectly, it could leak or become damaged, causing device trouble or injury.

1. Insert the battery with the "+" and "-" ends correctly oriented.
2. If the battery is used together with new batteries, do not use it with a different type of battery.
3. Do not apply solder directly to the battery.
4. Avoid storing the battery in direct sunlight, or in excessively hot and humid locations.