

TLCB59310AAAA

Rechargeable Lithium-Ceramic Battery

Ultra - Safe
Wide Temp. Window (Operation/Storage)
Tubular and Hollow



Benefits

- Ultra-Safe : No leakage, no fire, no explosion even device drop, crash, or sink.
- High Stability
 - Sustain 95°C over 5HR w/o safety issue
 - BLE pulse discharge is workable at 95°C
 - Able to be charged at 65°C and discharged at 75°C.
- Already have the bare wires connect to a load unit easily.

Key features

- UL1642 certified
- Stable even at critical environment.
 - Storage at 95°C 5HR, after 20cycles recovery > 70%
 - Storage at -40°C/3 months, recovery > 98%. No salt out.
 - Storage at -65°C/1 month, recovery > 98%. No salt out.
- High Stability (Operation)
 - Able to be charged at 65°C
 - Able to be pulse discharged at 95°C by BLE 20mA 10ms.

Main applications

- Wireless sensor for detecting the toxic gas in dangerous areas
- Wireless sensor for cold chain logistics
- BBQ wireless thermometer battery
- Specific industrial curing process during high temp.

Electrical characteristics

Nominal capacity	17 mAh
Nominal voltage	3.75 V
Operating voltage	4.35~2.75V
Energy Density	148 Wh/L

Mechanical characteristics

Diameter (D0/D1)(Max)	2.5 / 5.85 mm
Width (max)	31 mm
Typical weight	1.1 g

Operating conditions

Standard charge	CC-CV (Constant Current & Constant Voltage) Current 0.2CmA/ Voltage 4.35V Cut-off current: 0.05C
Max charge current	0.5 CmA
Standard discharge	CC (Constant Current) Current 0.2CmA Cut-off voltage: 2.75V
Max discharge current	0.5 CmA
Operation window	- 20°C to + 60°C

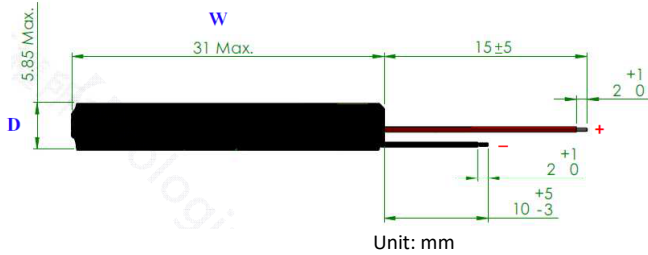
* Consult ProLogium for optimized charging below -20°C

Transportation and storage:

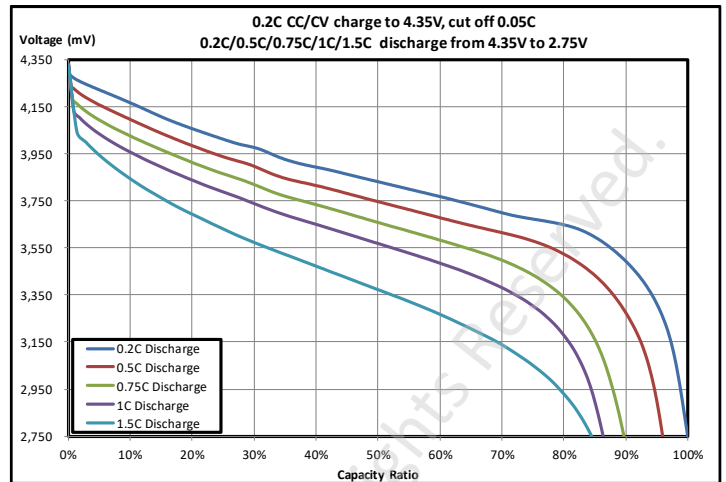
- Store in a dry place at a temperature preferably not exceeding 30°C.
- For long-term storage, keep the battery within a (30 ± 15) % state of charge.

TLCB59310AAAA

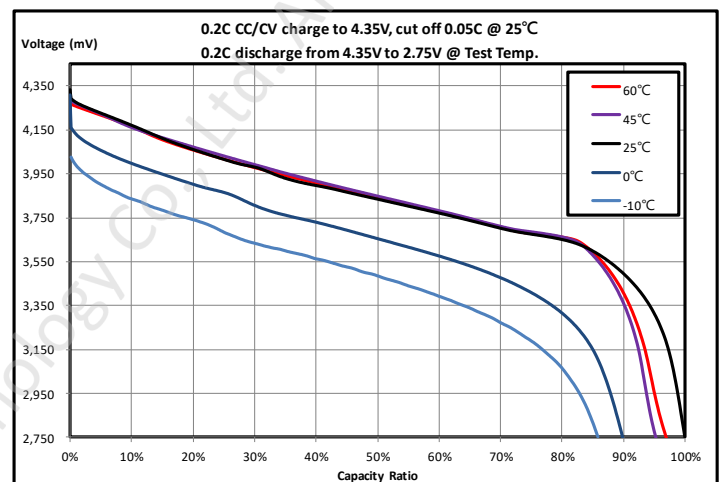
2D Drawing



Discharge Profiles (0.2/0.5/0.75/1/1.5 Rate)



Operation Temperature Test (-20°C to +60°C)

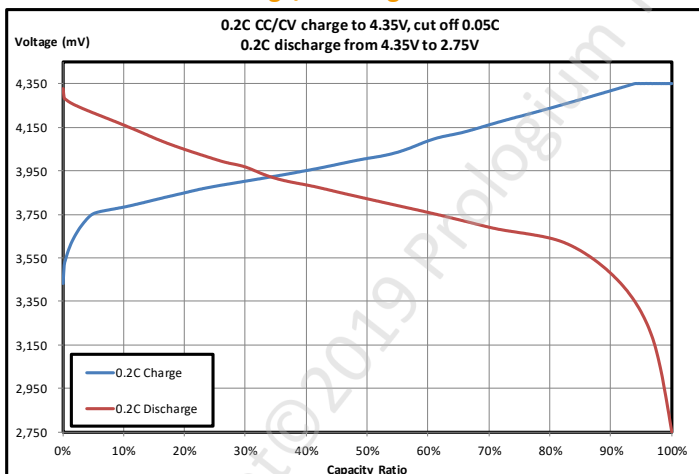


When handling ProLogium batteries:

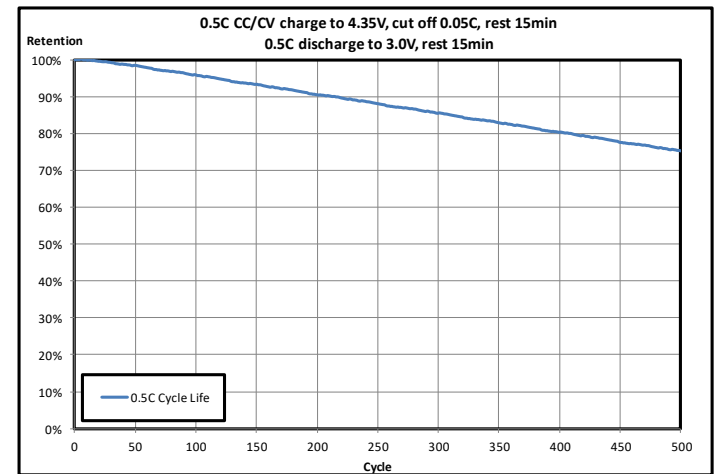
- Do not throw the battery into fire, nor heat.
- Do not disassemble nor modify.
- Do not leave in a place of $\geq 60^{\circ}\text{C}$.
- Prevent from water or moisture.
- Do not add strong shock, nor drop.
- Do not solder lead directly to battery body.
- Do not short + and - terminals with metal.
- Do not charge beyond the condition which described on the delivery specification.
- Do not inverse charge.

Typical characteristics:

Charge/Discharge Profile



Cycle Life Test



*charge/discharge/cycle tests criteria: @ room temp. (25°C)