

## PLCB475255AANA

### Rechargeable Lithium-Ceramic Battery

Ultra-Safe

Wide Temp. Window (Operation/Storage)



#### Benefits

- Ultra-Safe.
  - No fire, no smoke and no leakage after physical impact.
  - Hazard Level 1~3 passed.
- High Stability (Storage)
  - Able to storage at -65°C
- High Stability (Operation)
  - Able to be charged at 65°C
- Able to be discharged at 75°C

#### Key features

- Ultra-Safe.
  - Pass UL safety certification
- High Stability (Storage)
  - Storage at 85°C/14 days, recovery > 98%, Swelling ratio <10%.
  - 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 discharged at 75°C.

#### Main applications

- Wearable Device:
  - Smart Helmet
  - Smart Insole
  - GPS tracking
- High Safety Required Applications

#### 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.

#### Electrical characteristics

|                   |            |
|-------------------|------------|
| Nominal capacity  | 770 mAh    |
| Nominal voltage   | 3.75 V     |
| Operating voltage | 4.35~2.75V |

#### Mechanical characteristics

|                 |                          |
|-----------------|--------------------------|
| Thickness (max) | 4.8mm                    |
| Width (max)     | 52 mm                    |
| Length (max)    | 55 mm (without terminal) |
| Typical weight  | 30 g                     |

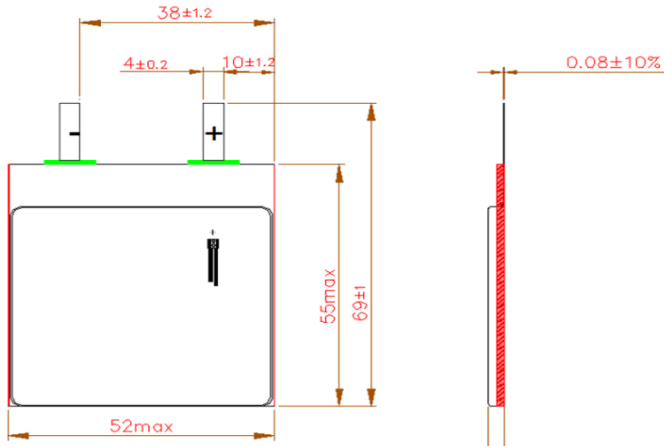
#### Operating conditions

|                       |   |
|-----------------------|---|
| Standard charge       | CC-CV (Constant Current & Constant Voltage)<br>Current 0.2CmA/ Voltage 4.4V<br>Cut-off current: 0.05C |
| Max charge current    | 1CmA  |
| Standard discharge    | CC (Constant Current)<br>Current 0.2CmA<br>Cut-off voltage: 2.75V                                     |
| Max discharge current | 1CmA  |
| Operation window      | - 20°C to + 60°C  |

\* Consult ProLogium for optimized charging below -20°C

# PLCB475255AANA

## 2D Drawing.



5.1 mm (Max) (After 500th Cycle)  
4.8 mm (Max) (@ Shipping State)

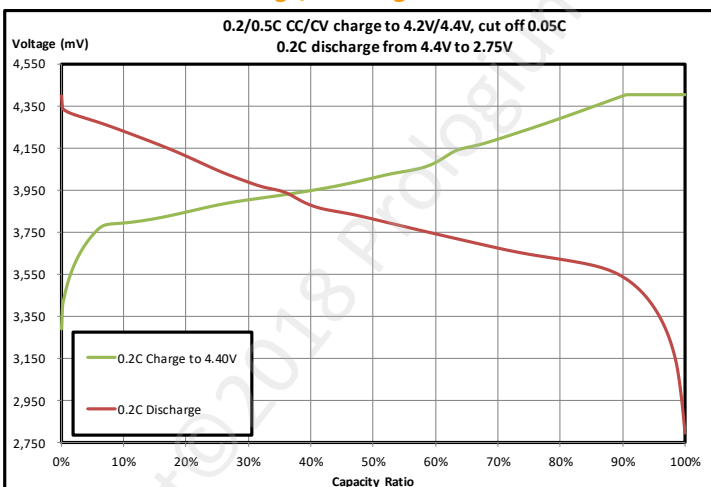
Unit: mm  
Tolerances : ±0.5mm

## When handling ProLogium batteries:

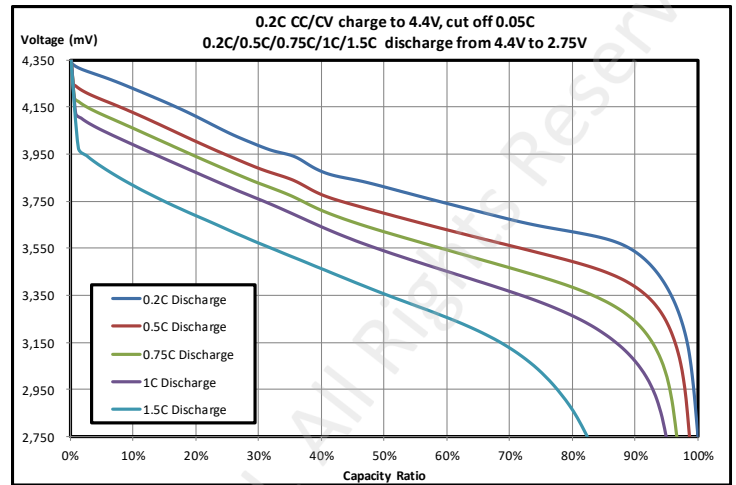
- Do not throw the battery into fire, nor heat.
- Do not disassemble nor modify.
- Do not leave in a place of  $\geq 60^{\circ}\text{C}$ .
- Prevent from water or moisture.
- Do not add strong shock, nor drop.
- Do not solder lead directly to battery body.
- Do not short + and - terminals with metal.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

## Typical characteristics:

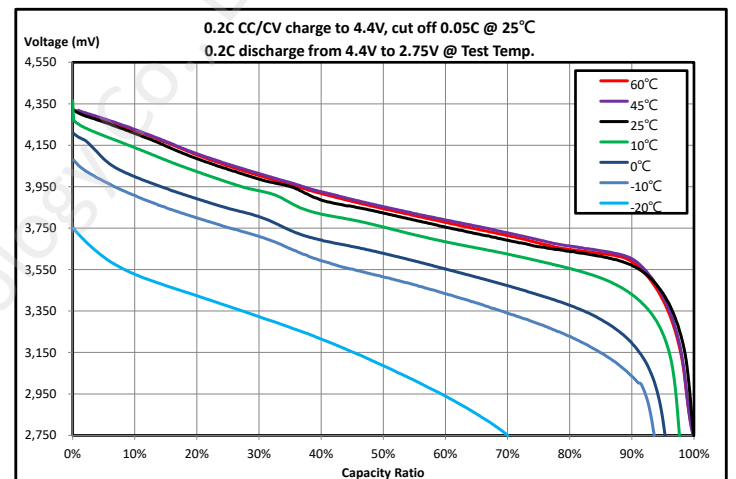
### Charge/Discharge Profile



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



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



## Cycle Life Test

