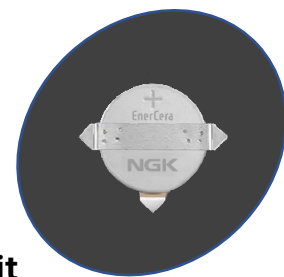


# EnerCera<sup>®</sup> Coin ET1210C-H



## Key Features of EnerCera Coin

- Ultra-compact lithium-ion rechargeable battery, ideal for IoT and compact electronics.
- Proprietary crystal-oriented ceramic technology enables:
  - High energy capacity
  - Thin and low-profile design
  - Low internal resistance
  - Excellent heat resistance
- Supports constant voltage charging, no charging IC required.

## Features of ET1210C-H

- Wide operating temperature range
  - Standard use: -20° C to +105° C
  - RTC backup: -40° C to +105° C
- Compatible with reflow soldering:
  - Recommended condition: Max. 240° C, single cycle.

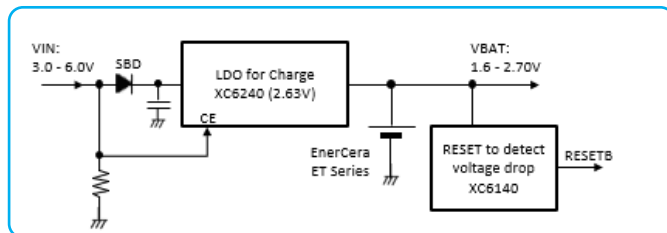
| Model Number                     | ET1210C-H  |
|----------------------------------|--|
| Diameter (without terminals)     | Φ12.5mm  |
| Thickness (with terminals)       | 1.3mm  |
| Nominal Capacity                 | 4 mAh  |
| Nominal Voltage                  | 2.3 V  |
| Charging Method                  | Constant Voltage (CV) charging (No current control required) |
| Charging Voltage                 | 2.7V   |
| Operating Voltage                | 1.5V ~ 2.7V  |
| (Ref.) Peak Discharge Current ※1 | 20mA   |
| Operation Temperature            | -20°C※2 ~ 105°C  |
| Features                         | Reflow soldering applicable※3                                |

※1 Voltage drop is less than 0.5V with continuous discharge for 0.1 sec. (at 25°C)

※2 From -40°C to 105°C for RTC backup applications.

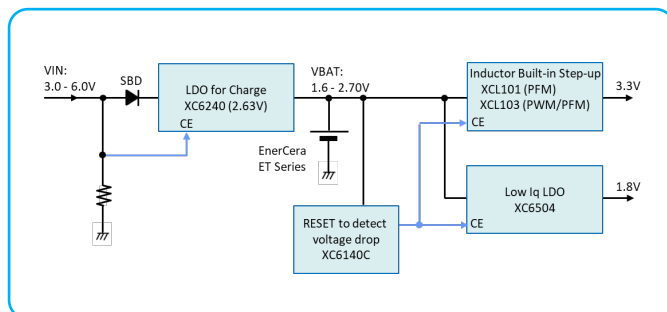
※3 Recommended conditions Max.240°C × 1 time Please check the user guide for details.

## Example charging circuit



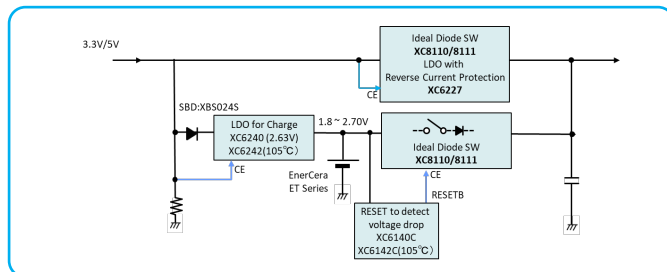
Select a charging LDO that stays below 2.7V, considering temperature and tolerance. To reduce battery drain when power is off, use reverse current protection and LDO standby control. A voltage detector is recommended to prevent over-discharge.

## Example Circuit for IoT Applications



3.3V supplied by boost DC/DC, 1.8V by low-power LDO. Power ICs are controlled by a voltage detector optimized for battery voltage drop and recharge timing.

## Example Circuit for Backup Applications



When the main power is available, its voltage is supplied. If it drops, the circuit automatically switches to backup power.

## 【Precautions】

Please refer to the second page before using this product. Please obtain the “User Guide” and read the sections “Safety Precautions” and “Usage Notes” before use.

## Precautions

# EnerCera<sup>®</sup> Coin ET1210C-H

EnerCera batteries sold online are intended for experimental and evaluation purposes only.

If you are considering using them for mass production, please contact us in advance.

These products are not intended for use by general consumers, including charging/discharging, integration into devices, or removal from devices.

Please contact us before using this product in any of the following applications:

- Nuclear control systems, transportation equipment (railways, vehicles, aircraft, ships, etc.), medical devices, safety equipment, or any systems, machinery, or devices where failure could pose a risk to human life or property.
- Any other applications requiring exceptionally high reliability or safety, similar to those listed above.

This product is designed for reflow soldering, but there are limitations regarding temperature, duration, and number of cycles. For recommended reflow profiles, please contact us.

The product is shipped in a discharged state, as it is designed to be reflow-mounted while discharged.

Do not charge the battery before reflow soldering.

Do not short-circuit the positive (+) and negative (–) terminals.

### Contact

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