



Power Management Unit (DC-DC)

1 Main features:

- ◆ Integrated charge and step-down discharge management
- ◆ MT4031A - 3.7 V... Support 3.7V lithium battery
- ◆ MT4031A - 3.2 V... Support 3.2V lithium iron battery
- ◆ The charging current can be configured up to 500mA
- ◆ Integrated charging indicator
- ◆ Discharge current up to 3.5A
- ◆ No load discharge is only 6uA
- ◆ Discharge efficiency up to 92%
- ◆ 1.5V output can be used in series
- ◆ Low battery output prompt function
- ◆ Built-in undervoltage protection
- ◆ Built-in short-circuit protection
- ◆ NTC monitors the battery status in real time
- ◆ DFN3*3 8L package

2 Typical application

- ◆ Replace the traditional 1.5V dry battery

3 Product description

HL4031A is a special chip for charge and discharge management of lithium battery. When charging, it can charge 3.7V / 3.2V lithium battery, The current can be configured up to 0.5A.

5 Parameter list

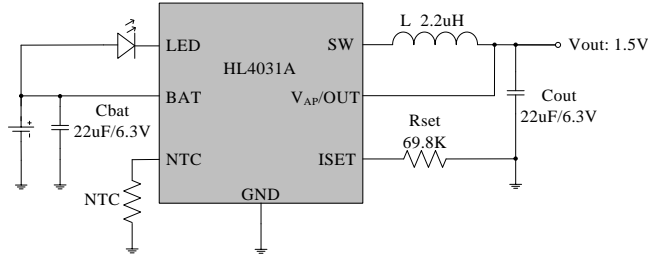
	Output voltage	Integrated unit	Charging current	Carrying capacity	Encapsulation form
HL4031A	1.5V	buck+charger+dis charger	500mA	3.5A	DFN3*3 8L

When discharging, a synchronous buck converter with switching frequency of 1.5MHz is used to discharge, and the discharge current can reach 3.5A.

Integrated charging, full and short circuit status indication. The NTC function monitors the battery temperature in real time to ensure the safety and reliability of the battery.

The HL4031A integrates status indicators such as charging, full and short circuit.

The HL4031A consumes only 6uA when unloaded. Typical application diagram is as follows:



4 Product highlights

- ◆ Integrated charge and step-down discharge management
- ◆ Replace the traditional 1.5V dry battery