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Features

- ◆ BUCK-BOOST Battery Charger for 1 to 7 Cell Batteries
- ◆ BUCK-BOOST Reverse Discharging Mode
- ◆ I2C interface
- ◆ Dynamic adjustable output voltage Support PD3.0 (PPS) and QC4.0
- ◆ Dynamic adjustable input and output current limit
- ◆ 2.7V to 36V Input Voltage Range
- ◆ 2.7V to 36V battery Voltage Range
- ◆ adjustable VCC voltage
- ◆ integrated BST diode
- ◆ adjustable frequency 200kHz 400kHz 600kHz
- ◆ Short Circuit Protection
- ◆ Thermal Fault Protection
- ◆ Inrush Current Limit and Soft Start
- ◆ QFN32L-4×4 package

Applications

- ◆ Power Bank with Quick Charge Function
- ◆ USB Power Delivery
- ◆ Industrial Power Supplies

General Description

The SP1268HN is a synchronous 4-switch buck-boost controller for 1 to 7 cell batteries charger. It is able to effectively output voltage no matter it is higher, lower or equal to the input voltage.

The SP1268HN supports very wide input and output voltage range. It can support applications from 2.7V to 36V input range and 2V to 36V output range. The driver voltage is can be set to 5V 7.5V or 10V to various external MOSFETs for best efficiency.

The SP1268HN supports input current limit, output current limit and over temperature protections to ensure safety under different abnormal conditions.

The SP1268HN adjustable output voltage input current limit output current limit used I2C interface.

Simplified Application Circuit

