

USB-Compliant Single-Cell Li-Ion Switching Charger

Description

The PB15306 is a switch-mode charging IC with maximum 2.5A current for lithium battery and lithium polymer battery. The IC is designed with standard four-stage charging process: active, pre-charging, constant current, constant voltage and perfect protection mechanism for over current, over voltage, under voltage and over temperature. It is integrated with synchronous PWM control, high power MOSFET, and high voltage OVP circuits.

The PB15306 is available in a low profile DFN3x3-10L package.

Features

- Input Voltage Range: 4.5V to 5.5V
- Charge Voltage: 4.2V、4.35V、4.4V, $\pm 0.5\%$
- 2.5A Maximum Charge Current
- $\pm 10\%$ Charge Current Regulation Accuracy
- 30V Absolute Maximum Input Voltage
- 28V Hot-Plug Ability
- Up to 94% Efficiency
- Input Over Voltage Protection
- BAT short circuit protection
- Synchronous Buck PWM Controller with Wide Duty Cycle Range
- Small Footprint 1 μ H External Inductor
- Thermal Protection
- DFN3x3-10L Package

Applications

- Cellular Phones, Smart Phones, PDAs
- Tablet, Portable Media Players
- Gaming Device, Digital Cameras
- E-Cigarettes

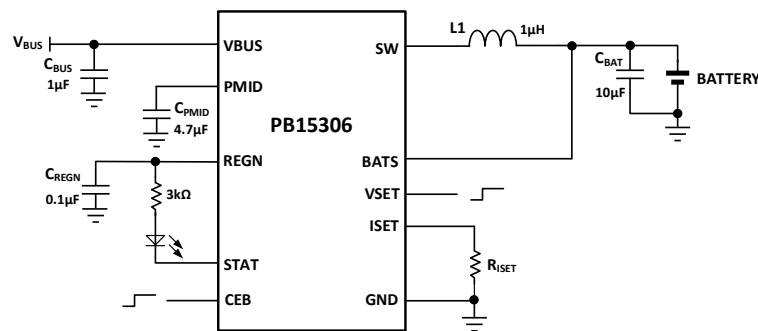
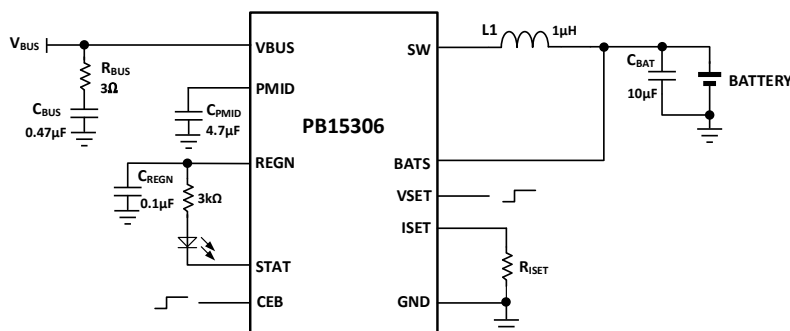


Figure 1: Typical Application



Hot plug enhancement

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