

Product Overview

NCP1854: Switching Battery Charger, 2.5 A, with Power Path Management

For complete documentation, see the data sheet

The NCP1854 is a fully programmable single cell Lithium-ion switching battery charger optimized for charging from a USB compliant input supply and AC adaptor power source. The device integrates a synchronous PWM controller, power MOSFETs, and the entire charge cycle monitoring including safety features under software supervision. An optional battery FET can be placed between the system and the battery in order to isolate and supply the system. The NCP1854 junction temperature is monitored during charge cycle and both current and voltage can be modified accordingly through I2C setting. The charger activity and status are reported through a dedicated pin to the system. The input pin is protected against overvoltages.

Features

- 2.5 A Buck Converter with Integrated Pass Devices
- Input Current Limiting to Comply to USB Standard
- Automatic Charge Current for AC Adaptor Charging
- High Accuracy Voltage and Current Regulation
- Input Overvoltage Protection up to +28 V
- Factory Mode
- 1000 mA Boosted Supply for USB OTG Peripherals
- Reverse Leakage Protection Prevents Battery Discharge
- Protected USB Transceiver Supply Switch
- Dynamic Power Path with Optional Battery FET

For more features, see the data sheet

Applications

- Single Cell Li-Ion Battery Charger
- High Efficiency Charging

End Products

- Smart Phone
- Handled device
- Tablet
- PDA

Part Electrical Specifications

Product	Compliance	Status	Type	Number of Cells Charged	V _{CC} Min (V)	V _{CC} Max (V)	I _D Max (µA)	Package Type
NCP1854FCCT1G	Pb-free Halide free	Active	Li-Ion/Polymer	1	4	28	5	Flip-Chip-25

For more information please contact your local sales support at www.onsemi.com

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