

High Efficiency, Synchronous Buck Charger for 1-2 cell Li-ion Battery

1 DESCRIPTION

The SC8931 is a highly integrated switch-mode buck charger for 1-2 cell Li-ion battery applications. It supports 4-13.5V input, up to 3A charging current and provides battery charge management functions including trickle charge, constant current charge, constant voltage charge, charge termination and charging status indication.

The SC8931 supports flexible charge current option, and the user can program the current freely through external resistor for different applications. With the charger management function, the IC can be used to charge 1-2 cell Li-ion battery.

The SC8931 supports input current limit, input under voltage and over voltage protections, internal cycle by cycle current limit, battery short circuit protection, and output over voltage protection. It also offers over temperature protection to ensure safety under different abnormal conditions.

The SC8931 is available in QFN-3*3(FC) package.

2 FEATURES

- Integrated Synchronous Buck Charger
- Charging Management (Trickle Charge / Constant Current Charge / Constant Voltage Charge / Charge Termination/Auto recharge)
- Programmable Constant Charge Current
- Selectable Target Voltage:
 - 4.2V/4.3V/4.35V/4.4V for 1s
 - 8.4V/8.6V/8.7V/8.8V for 2s
- 600KHz switching frequency
- Charge Status Indication
- Adjustable Input Current Limit
- Wide input voltage (4V~13.5V)
- Input Under Voltage and Over Voltage Protection
- Battery Over Voltage Protection
- Battery Over Current Protection
- Battery Short Circuit Protection
- Thermal Regulation and Shutdown
- QFN3*3 footprint

3 APPLICATIONS

Blue tooth speaker charger
Portable Media Players
Notebook, Tablet
POS machine

4 DEVICE INFORMATION

Part Number	Package	Dimension
SC8931QFKR	QFN-3*3	3mm X 3mm X0.55mm