

## High Accuracy 1 Cell Li-ion/Li-polymer Battery Protection

### 1 Descriptions

SC5613 series are single cell Li-ion battery primary protection IC. It monitors the battery voltage and current, provide accurate protection and recovery threshold and control the external CHG and DSG FET to provide full array protection.

The current is monitored via the voltage across the external sense resistor. For better system thermal performance, SC5613 could enable the use of low sense resistor to reduce the power dissipations

SC5613 is available in 6 pin DFN6L package

### 2 Features

- **Voltage Protection**
  - Over charge voltage protection ( $\pm 20\text{mV}$ )
  - Over discharge voltage protection ( $\pm 35\text{mV}$ )
- **Current Protection**
  - Charging overcurrent detection voltage ( $\pm 1\text{mV}$ )
  - Discharging overcurrent detection voltage1 ( $\pm 1\text{mV}$ )
  - Discharging overcurrent detection voltage2 ( $\pm 2\text{mV}$ )
  - Load short detection voltage protection ( $\pm 5\text{mV}$ )
- **Accurate delay circuit**
- **Support small sense resistor**
- **Low Current consumption**
  - Normal mode 2.4 $\mu\text{A}$  typ
  - Over-discharge mode 1.3 $\mu\text{A}$  typ
- **Additional feature**
  - Selectable 0V charging allowed/inhibit
  - OV Latch enable/disable
- **Package DFN6L 1.57\*1.9**

### 3 Applications

- Smartphone
- Tablet
- Battery Pack

### 4 Device Information

Part Number	PACKAGE	BODY SIZE
SC5613	DFN6L	1.57mm x 1.9mm x 0.4mm