Battery Protection IC for Multi-Cell (Secondary Protection)

Features

- 1 to 3-Series Cell Secondary Protection
- High Accuracy Over-charge Voltage: ±20mV (+25℃)
- Low Power Consumption: At 4.0V for each cell: 2uA max. (+25℃)
- High Ripple Rejection Ability for Power Supply
- Package: 6-pin TSOT-23-6

Description

NT1732B series are accurate secondary battery protection ICs for 1/2/3-cell Lithium-Lon/Lithium-Polymer battery packs, on which a precise voltage detection circuit with a specific reference is embedded.

NT1732B series monitor individual cell voltages. If any cell voltage reaches or goes over the specified voltage and lasts for a period longer than the delay time set, NT1732B series activate an external MOSFET to blow the three-terminal protection fuse, permanently disabling the battery pack.

Applications

- Notebook PCs
- Tablets
- Slates
- Power Tools
- Portable Instrumentation
- Medical and Test Equipment

Typical Application Circuit

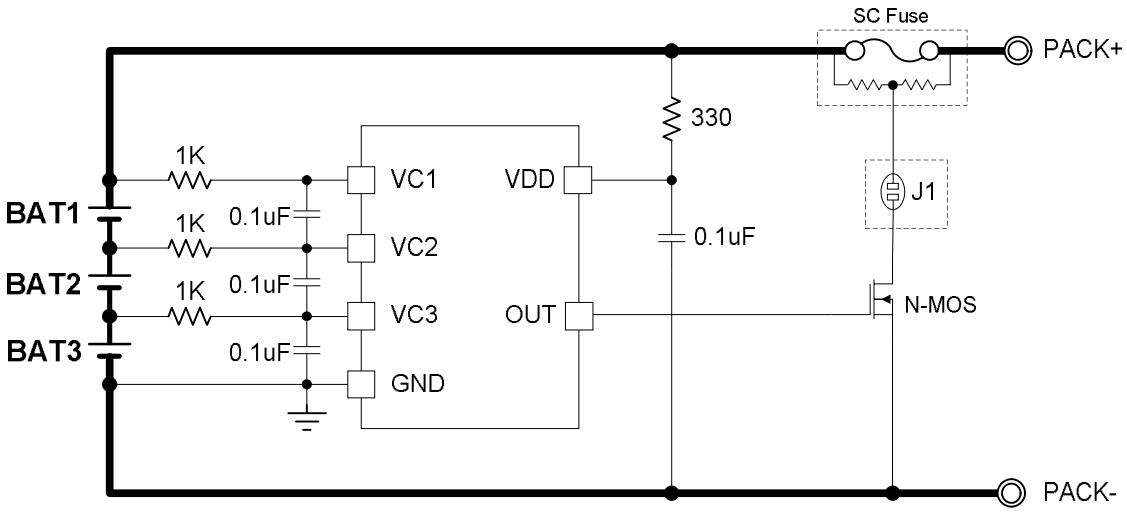
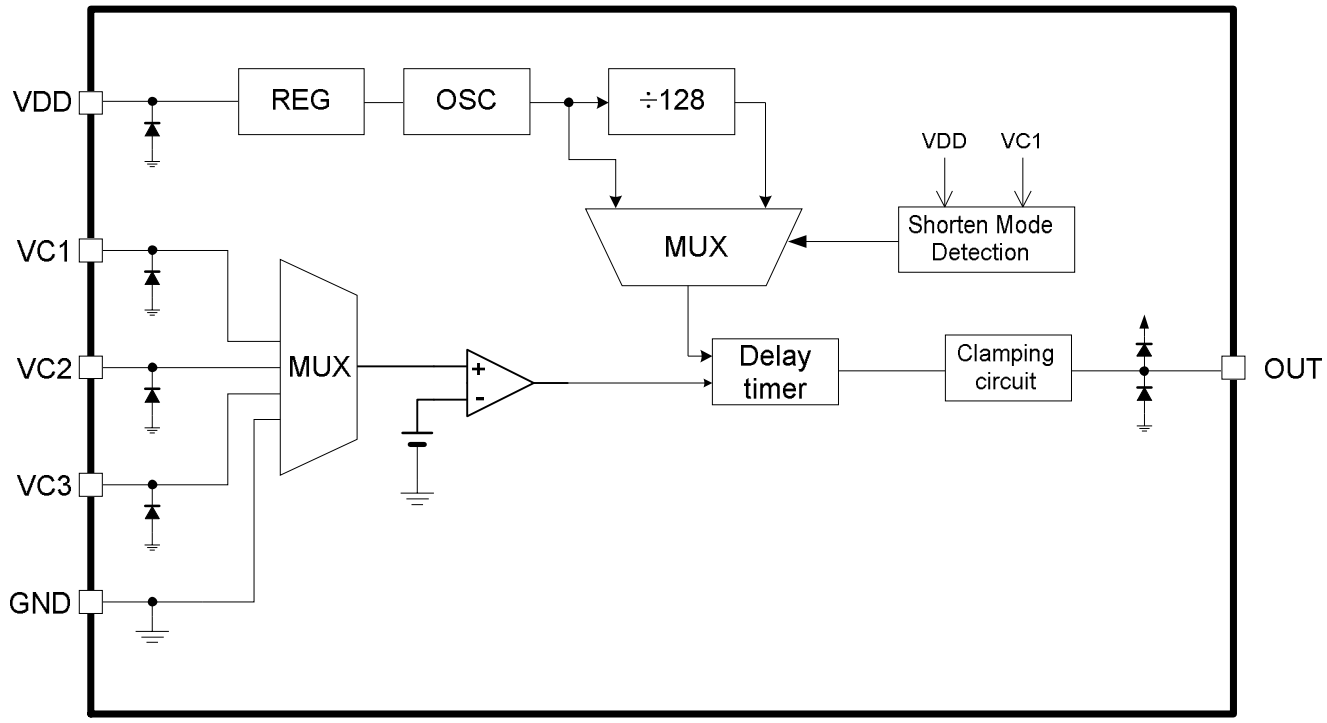


Figure 1. High Side Application for 3-cell Protection

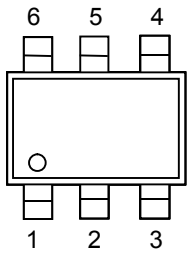
These devices have limited build-in ESD protection. The leads must be shorted together or the device placed in conductive foam during storage or handling to prevent electrostatic damage to the MOS gates.

Block Diagram



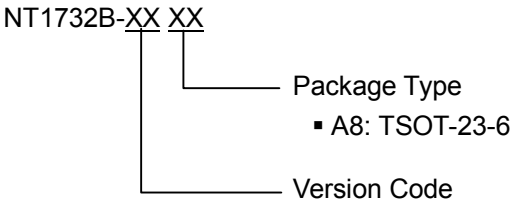
Package and Pin Configurations

TSOT-23-6



Pin No.	Symbol	Pin description
1	VDD	Power supply input
2	VC1	Cell voltage input (the cell of the highest voltage)
3	VC2	Cell voltage input (the cell of the second highest voltage)
4	VC3	Cell voltage input (the cell of the lowest voltage)
5	GND	Ground
6	OUT	Active output pin to control the external MOSFET

Ordering Information



Product Name	Version Code	Package Type	Over-charge Detection Voltage, V_{CUn} (V)	Over-charge Hysteresis Voltage, V_{CHn} (mV)	Over-charge Detection Delay Time, t_{CU} (sec)
NT1732B	PA	A8	4.45 ± 0.02	250－300－400	6.5 ± 1.3
NT1732B	TA	A8	4.50 ± 0.02	250－300－400	6.5 ± 1.3