

USB Type-C High Voltage Load Switch with Protection

Features

- Load switch with current limit and OVP
- Input Operation Voltage Range: 2.5V to 13V
- Absolute Maximum Voltage Rating of VOUT: 28V
- Adjustable Current Limit: Max 2.5A
- Integrated MOSFET switch with 58mΩ R_{DS_ON} @ 5V/1A
- Built in Soft Start to prevent inrush current
- Fast VOUT Discharge
- Protection
 - Thermal Shutdown Protection (TSD)
 - Over Voltage Protection (OVP)
 - SM5362/SM5362C: 14V
 - SM5362A: 10.5V
 - SM5362B: 5.8V
 - Programmable Over Current Protection (except SM5362C)
 - Reverse Current Blocking Protection
- Current Sensing Output (SM5362C)
- Compliance to IEC61000-4-2 (ESD) on VOUT

 Air: ±15kV, Contact: ±8kV
- 9-Bump, WLCSP 1.25mm x 1.25mm

Applications

- Smartphones, Tablet PC, Note PC
- Mobile IOT Devices

Description

The SM5362/SM5362A/SM5362B/SM5362C is unidirectional load switch with $58m\,\Omega$ ultra-low resistance MOSFET switch. The in-rush current is limited by the built-in slew rate control. This is used in between a power source and a load to protect and isolate power source against unwanted abnormal voltage and current condition.

The SM5362 applies a higher 15V AMR(Absolute Maximum Voltage Rating) VIN switch for a higher voltage application (9V or above) and the device supports an input operation voltage up to 13V. Its over voltage protection level is set as 14.0V in default version and can be varied by optional version

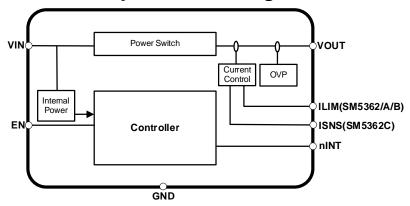
The SM5362/SM5362A/SM5362B/SM5362C also features several protection functions such as output over voltage protection, input under-voltage protection and Reverse Current Blocking Protection to prevent system device from excessive VOUT voltage in OTG Mode. It supports adjustable over-current protection with interrupt and over-temperature protection. The device has Fast Discharge Circuit on VOUT to prevent floating condition of VOUT.

The SM5362/SM5362A/SM5362B/SM5362C is available in a 9-pin WLCSP package.

Device Information

Part	Package	Size
SM5362	9 WLCSP	1.25mm x 1.25mm
SM5362A	9 WLCSP	1.25mm x 1.25mm
SM5362B	9 WLCSP	1.25mm x 1.25mm
SM5362C	9 WLCSP	1.25mm x 1.25mm

Simplified Block Diagram



SM5362/SM5362A/SM5362B/SM5362C

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