

Adjustable Over-Voltage Protection Switch

Features

- Wide Input voltage range: 2.5V to 40V
- Up to 4.5A current capability
- Integrated 26mΩ (typ) N-Channel MOSFET
- Fast OVP turn-off response time: 100ns
- Selectable trip-point options
 - ▶ Fixed 5.95V
 - ▶ Fixed 10.2V
 - ▶ Fixed 13.5V
 - ▶ Adj. 4V to 24V
- Auto-enabled switch with 18ms debounce time
- Under voltage (UVLO), Short-circuit and thermal shutdown protection
- VDET output to indicate the presence of VBUS
- ESD Protection
 - ▶ Human Body Model: ±2.0kV
- Pb-free WLCSP-12 package
- -40°C to +85°C Temperature Range

Applications

- Smartphones
- Mobile Internet Devices
- Tablet Computers
- Peripherals

Brief Description

The KTS1662 over-voltage protection device features an ultra-low 26mΩ (typical) on-resistance high current integrated MOSFET which actively protects low-voltage systems from voltage supply faults up to +40V.

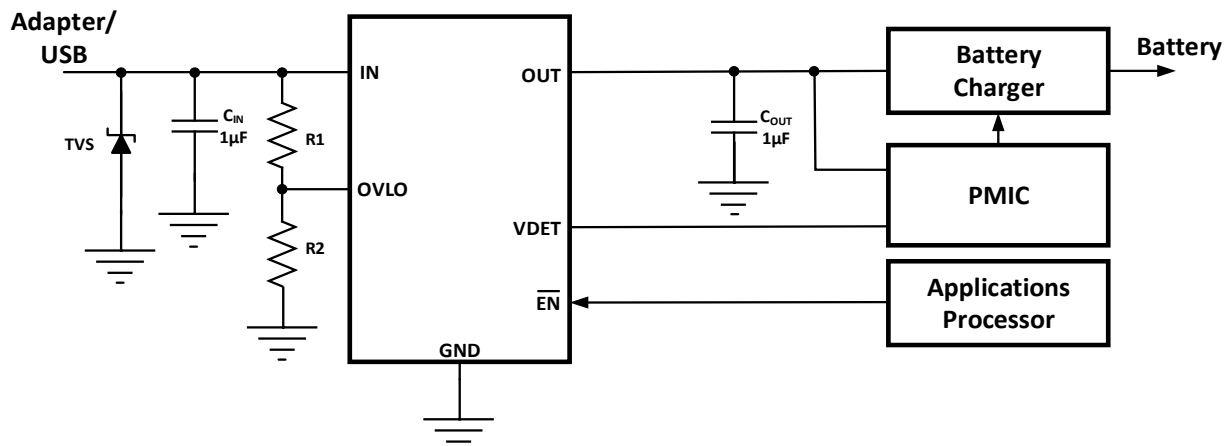
An input voltage exceeding the over-voltage threshold will cause the internal MOSFET to turn off, preventing excessive voltage from damaging downstream devices.

The KTS1662 offers three different fixed OVP options, plus a fully adjustable option. When the OVLO input is connected to GND, the KTS1662 automatically chooses the internal fixed OVLO threshold, preset to 5.95V (typical). Allowing OVLO to float, gives a preset of 10.2V (typical) and connecting a resistor to GND between 30kΩ and 80kΩ gives a preset of 13.5V (typical) The over-voltage protection threshold can also be fully adjusted with an optional external resistor divider to a voltage between 4V and 24V.

The KTS1662 features a VDET output to indicate the presence of a voltage at VBUS and is independent of the OVP switch. In case the device temperature exceeds the maximum junction temperature, the device switches off.

The KTS1662 is available in a RoHS and Green compliant 12-Bump 1.28 x 1.94 x 0.062mm WLCSP.

Typical Application



Ordering Information

Part Number	Marking ¹	Operating Temperature	Package
KTS1662EUW-TR	KVXXYYZZZZ	-40°C to +85°C	WLCSP-12

1. "KVXXYYZZZZ" is the device ID code, date code, assembly code and serial number.

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