

Surge and Over-voltage Protected Load Switch

Features

- Surge and ESD protected Input
 - Surge Protection
 - IEC 61000-4-5: > 100V
 - ESD Protection
 - IEC 61000-4-2 (Level 4)
 - Contact: ±8kV
 - Air Gap: ±15kV
 - Human Body Model: ±2kV
- Wide Input voltage range
 - 2.5V to 28V
- Low Quiescent Current: 60µA (typ.)
- N channel MOSFET load switch with low forward voltage drop
 - 72mV @ 2A
- Fast turn-off response time
 - 300ns
- Flexible trip-point options
 - Fixed 6.8V
 - Adj. 4V to 20V
- Auto-enabled switch with typ. 15ms debounce time
- Additional Under voltage (UVLO), Short-circuit and Thermal shutdown protection
- Open-drain power good output
- Pb-free WLCSP-12 package
- -40°C to +85°C Temperature Range

Brief Description

The KTS1680 over-voltage protection device features an ultra-low 38mΩ (typical) on-resistance high current integrated MOSFET which actively protects low-voltage systems from voltage supply faults up to +28V_{DC}. An internal clamp protects the device from surges up to 100V.

An input voltage exceeding the over-voltage threshold will cause the internal MOSFET to turn off, preventing excessive voltage from damaging downstream devices. When the OVLO input set below the external OVLO select voltage, the KTS1680 automatically chooses the internal fixed OVLO threshold, preset to 6.8V (typical). The over-voltage protection threshold can be adjusted with optional resistor divider to a voltage between 4V and 20V.

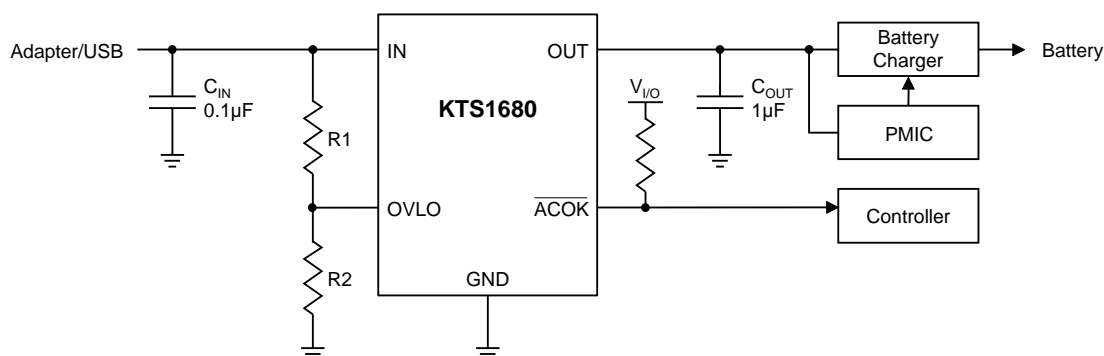
The device features an open-drain output \overline{ACOK} indicating a stable supply between the minimum supply voltage and OVLO threshold. The KTS1680 is also protected against over-current faults and has thermal protection.

The KTS1680 is available in a RoHS and Green compliant 12-Bump 1.30mm x 1.96mm WLCSP.

Applications

- Smartphones
- Tablet Computers
- Mobile Internet Devices
- Peripherals

Typical Application



Ordering Information

Part Number	Marking	Operating Temperature	Package
KTS1680EAB-TR	GFXXYYZZZZ ¹	-40°C to +85°C	WLCSP-12

1. XX = Date Code, YY = Assembly Code, ZZZZ = Serial Number.

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