

Low Resistance Load Switch with Current Limit Control and Over-Voltage Reverse Blocking Protection

Features

- Wide Input voltage range: 2.5V to 5.5V
- 28V Absolute Ratings at V_{OUT}
- Adjustable Current Limit to 2.5A
- Integrated MOSFET with $68m\Omega$ (Typ) at $5V_{IN}$ and $1A I_{OUT}$
- Output OVP 5.8V (Typ)
- Open-Drain over-current fault flag
- Integrated protection
 - ▶ Thermal Shutdown
 - ▶ Under-Voltage Lockout (UVLO)
 - ▶ Soft-start
 - ▶ OUT to IN Reverse Blocking
- Pb-free Package:
 - ▶ 9-Bump WLCSP 1.22mm x 1.22mm
- $-40^{\circ}C$ to $+85^{\circ}C$ Temperature Range

Brief Description

The KTS1688 is a slew-rate controlled, $68m\Omega$ (Typ), low resistance MOSFET switch intended to be inserted between a power source and a load to isolate and protect against abnormal voltage and current conditions. Featuring slew-rate turn on control, to prevent excessive input voltage or battery droop resulting from a large inrush current, the KTS1688 also features several additional protection functions, such as output over-voltage and input under-voltage protection, plus over-current (with Fault-flag) and over-temperature protection.

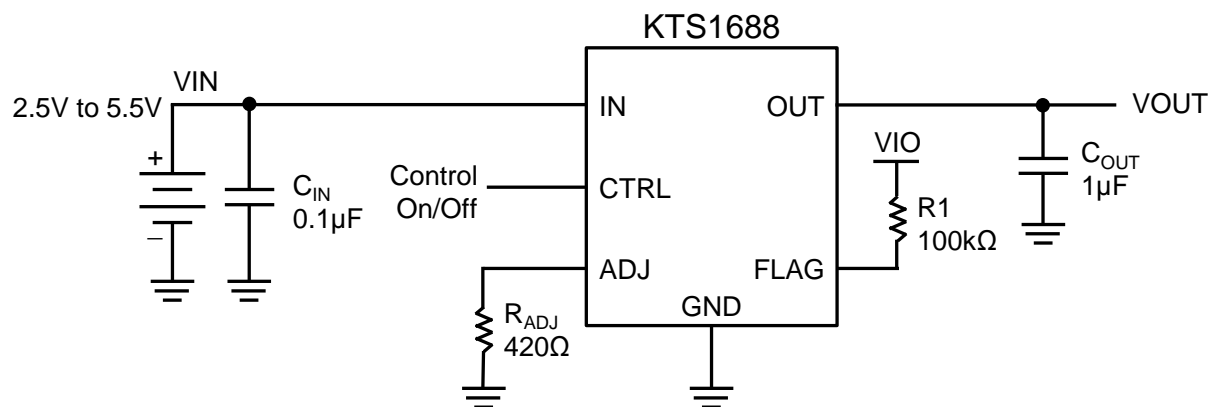
Operating from a wide input voltage range of 2.5V to 5.5V, the KTS1688 in the OFF state can block voltages on the OUT pin of up to 28V. The switch CTRL input is active high and includes a resistor pull-down.

The device is packaged in advanced, fully “green” compliant, 1.22mm x 1.22mm, Wafer-Level Chip-Scale Package (WLCSP).

Applications

- Smart Phones, and Tablets
- Mobile Internet Devices
- Peripherals
- Storage, DSLR and Portable Devices

Typical Application



Ordering Information

Part Number	Marking	Operating Temperature	Package
KTS1688EUH-TR	JEXXYYZZZZ ¹	-40°C to +85°C	WLCSP-9

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

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