

FEATURES

- . Integrated 60mΩ Power MOSFET
- . 1uA Typical at Switch Off State
- . Wide Input Voltage Range:2.5V to 5.5V
- . Fast Transient Response:8us
- . 0.1mS Typical Rise Time
- . Reverse Current Flow Blocking
- . Automatic output discharge at shutdown
- . Thermal Shutdown Protection
- . Hot Plug-In Application (Soft-Start)
- . SOT-23-5 Package

GENERAL DESCRIPTION

The TCS9163 is a cost-effective, single P-MOSFET load switch with ultra-low $R_{DS(ON)}$, optimized for self-powered and bus-powered Universal Serial Bus (USB) applications. Input voltage from 2.5V to 5.5V, making it ideal for both 3V and 5V systems. A built-in P-channel MOSFET with true shutdown function to eliminate any reversed current flow across the switch. When output voltage is higher than input voltage, power switch is turned off.

The TCS9163 offers a programmable current limit threshold between 400mA to 2.4A via an external resistor.

APPLICATIONS

- . USB Bus/Self Powered Hubs
- . Battery-Charger Circuits
- . Personal Communication Devices
- . Notebook Computers

TYPICAL APPILCATION

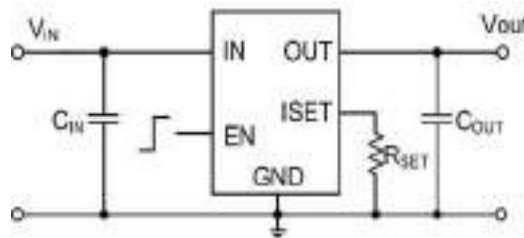


Figure 1. TCS9163 Application Circuit