Features

- Integrated NMOSFET R_{DSON}=65mΩ(typ.)
- Operating input voltage range: 2V to 5.5V
- Reverse leakage current less than 10μA
- Low quiescent current: 35μA
- 1.5ms typical rise time and fast turn off
- Over current protection with fold-back
- 2μs response for short circuit protection
- Over temperature protection

Applications

- USB Peripherals
- Notebook PCs
- Mini PCI Accessories

Package: SOT-23-5L

Description

The TCS9735 is a low-voltage, fast turn on, single NMOSFET high-side power switch. The typical rise time is 1ms. This IC can operate over an input voltage range of 2V to 5.5V. A 65mΩ (typ.) ultra-low switch-on resistance and 35μA low quiescent current are realized in the device.

By integrating many function circuits, such as, current limit circuit, short circuit protection circuit and thermal shutdown circuit, the TCS9735 can provide a good performance to protect the power source from over current and short circuit conditions. Besides, built-in soft-start minimizes stress on the input power source by reducing capacities inrush current during start-up.

Furthermore, owning $\overline{OC}$ fault flag output with embedded delay time function can indicate fault conditions correctly. Those abilities make the TCS9735 an ideal solution for USB power supply applications.

The TCS9735 is available in SOT23-5 package.

Typical Application Circuit