

Single High-Side Power Switch

Features

- ★ Low Quiescent Current
- ★ Operating Range: 2.7V to 5.5V
- ★ 78mΩ High-Side MOSFET
- ★ Built-in Soft-start
- ★ 1.5ms Typical Rise Time
- ★ Logic Level Enable Pin
- ★ Automatic Output Discharge at Shutdown
- ★ Under Voltage Lockout (UVLO)
- ★ Reverse-Voltage Protection (RVP)
- ★ Thermal Shutdown Protection (TSD)
- ★ Over Current Protection (OCP)
- ★ Short Circuit Protection (SCP)
- ★ Deglitched Fault Flag ($\overline{\text{FLG}}$)
- ★ Reverse Current Flow Blocking
- ★ RoHS Compliant and Halogen Free

General Description

The PS3000 is single high-side power switch, supporting input voltage range from 2.7V to 5.5V. N-channel MOSFET with low $R_{DS(ON)}$ and an internal charge pump for the driver circuit are integrated. The PS3000 features a low quiescent current 25μA (typ.) and low shutdown current 0.1μA (typ.) for battery-powered equipment. An internal soft-start circuit limiting the inrush current during startup, and a fault flag indicator with deglitch time 10ms (typ.) are built in the PS3000. The fault flag is activated (active low) by thermal shutdown protection (TSD), over-current protection (OCP) and reverse-voltage protection (RVP). In addition, an input voltage under-voltage lockout (UVLO) and an output discharge resistor are embedded in the PS3000. The device is available in SOT-23-5 package.

Applications

- ★ USB Ports and Hubs
- ★ Notebook
- ★ Motherboard PC

Typical Application Circuit

