150mQ Power Distribution Switches

■ General Description

The PN9701 is an integrated $150m\Omega$ power switch for self-powered and bus-powered Universal Series Bus (USB) applications. A built-in charge pump is used to drive the N-channel NMOSFET that is free of parasitic body diode to eliminate any reversed current flow across the switch when it is powered off. Its low quiescent supply current (23 μ A) and small package (SOT-23-5) is particularly suitable in battery-powered portable equipment.

Several protection functions include soft start to limit inrush current during plug-in, current limiting at 1000mA or 650mA, and thermal shutdown to protect damage under over current conditions.

■ Features

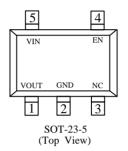
- Wide Input Voltage Range: 2.2V ~ 6V
- 150mΩ (Typ.) High-Side NMOSFET (SOT- 23-5)
- 650Ma/1000mA Current Limit
- Small SOT- 23-5 Package Minimizes Board Space
- Soft Start
- Thermal Protection
- Low 23 μA Supply Current

Applications

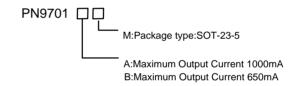
- Battery-Powered Equipment
- Motherboard USB Power Switch
- USB Device Power Switch
- Hot-Plug Power Supplies
- Battery-Charger Circuits

Package

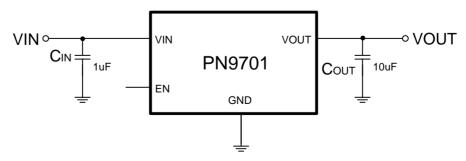
- SOT-23-5
- Pin Configuration
- Ordering information: PN9701AM



■ Product Name Description



■ Typical Application Circuit



http://www.power-n.cn