

1.5MHz,1A Synchronous Step-Down Converter

General Description

The PN6010 is a currentmode monolithic buck switching regulator. Operating with an input range of 2.5V-6.0V, the PN6010 delivers 1.0A of continuous output current with integrated P-Channel and N-Channel MOSFETs. The internal synchronous power switches provide high efficiency. At light loads, the regulator operate in low frequency to maintain high efficiency and low output ripples. Current mode control provides tight load transient response and cycle-by-cycle current limit.

The PN6010 guarantees robustness with hiccup output short-circuit protection, FB short-circuit protection, start-up current run-away protection, input under voltage lockout protection, hot-plug in protection, and thermal protection. The PN6010 provides output power good indication which is only available in SOT-23-5 package.

Package

- SOT-23-5

Applications

- Set Top Boxes
- Telecom/Networking Systems
- cameras,video,equipment,communications equipment, regulated power supply
- GPU/DDR Power Supply

Features

- 1.5MHz switching frequency
- Up to 1.0A output current
- Up to 95% peak efficiency
- 2.5V to 6.0V operating input range
- can reach 100% duty cycle
- PWM automatic/PFM switching duty cycle adjustable to maintain a large load range of high efficiency,lowripple
- Short circuit protection

Typical Application Circuit

