

DESCRIPTION

The MP6907 is a low-drop diode emulator controller IC that, when combined with an external MOSFET, can replace Schottky diodes in high-efficiency flyback converters. The MP6907 regulates the forward drop of an external switch to about 70mV, which switches off once the voltage becomes negative.

The MP6907 provides a SYNC interface to receive an external signal to shut down the gate driver for reliable continuous conduction mode (CCM) operation. A programmable light-load sleep mode can reduce the IC's quiescent current to ~150µA.

The MP6907 is available in compact SOIC8 and TSOT23-6 packages.

FEATURES

- Works with 12V Standard and 5V Logic Level MOSFETS
- Compatible with Energy Star 1W Standby Requirements
- Fast Turn-Off Total Delay of 25ns
- 4.2V~35V Wide VDD Operating Range
- ~150µA Quiescent Current in Light-Load Mode(1)
- Supports CCM, DCM, and Quasi-Resonant Operation
- SYNC Interface for CCM Operation
- Supports High-Side and Low-Side Rectification
- Power Savings of up to 1.5W in a Typical Notebook Adapter
- Available in SOIC8 and TSOT23-6 Packages

APPLICATIONS

- Industrial Power Systems
- Distributed Power Systems
- Battery Powered Systems
- Flyback Converters

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TYPICAL APPLICATION

