

## FAN6224

# mWSaver™ Synchronous Rectification Controller for Flyback Converter in CCM, DCM and QR Operation

## Product Overview

For complete documentation, see the data sheet.

FAN6224 is a secondary-side Synchronous Rectification (SR) controller to drive SR MOSFET for improved efficiency. The IC is suitable for flyback converters and forward freewheeling rectification.

FAN6224 can be applied in Continuous or Discontinuous Conduction Mode (CCM and DCM) and Quasi-Resonant (QR) flyback converters based on a proprietary linear-predict timing-control technique. The benefits of this technique include a simple control method without current-sense circuitry to accomplish noise immunity.

With PWM frequency tracking and secondary-side winding voltage detection, FAN6224 can operate in both fixed- and variable-frequency systems up to 140kHz.

FAN6224 detects output load condition and determines adjustable loading levels for Green Mode. In Green Mode, the SR controller stops all SR switching operation to reduce the operating current. Power consumption is maintained at a minimum level in light-load condition.

## Features

- mWSaver™ Technology:
- Internal Green Mode to Stop SR Switching for Lower No-Load Power Consumption
- 300  $\mu$ A Ultra-Low Green Mode Operating Current
- Synchronous Rectification Controller
- Suited for High-Side and Low-Side of Flyback Converters in QR, DCM, and CCM Operation
- Suited for Forward Freewheeling Rectification
- PWM Frequency Tracking with Secondary-Side Winding Voltage Detection
- 140 kHz Maximum Operation Frequency
- VDD Pin Over-Voltage Protection (OVP)
- LPC Pin Open/Short Protection

For more features, see the data sheet

## Applications

- AC-DC Merchant Power Supply - Desktop PC
- AC-DC Merchant Power Supply
- AC-DC Merchant Power Supply - Servers & Workstations
- External AC-DC Merchant Power Supply - Portable Consumer
- Notebook PC