

## Product Overview

### FAN6208: Synchronous Rectification Controller for Half-Bridge Resonant Converter

For complete documentation, see the data sheet.

FAN6208 is a synchronous rectification (SR) controller for isolated LLC or LC resonant converters that can drive two individual SR MOSFETs emulating the behavior of rectifier diodes. FAN6208 measures the SR conduction time of each switching cycle by monitoring the drain-to-source voltage of each SR and determines the optimal timing of the SR gate drive. FAN6208 uses the change of opto-coupler diode current to adaptively shrink the duration of SR gate drive signals during load transients to prevent shoot-through. To improve lightload efficiency, Green-Mode operation is employed, which disables the SR drive signals, minimizing gate drive power consumption at light-load condition. Optimal timing circuits and protection functions are integrated in an 8-pin SOP package, which allows high efficiency power supply design with fewer components.

### Features

- Specialized SR Controller for LLC or LC Resonant Converters
- Secondary-Side Timing Detection with Timing Estimator
- Gate-Shrink Function to Prevent Shoot-Through During Load and Line Transient
- Green-Mode Function for Higher Efficiency at Light-Load Condition
- Programmable Dead Time between Primary-Side Gate Drive Signal and SR Drive Signal
- Advanced Output-Short / Overload Protection Based on the Feedback Information
- Internal Over-Temperature Protection (OTP)
- VDD Pin Over-Voltage Protection (OVP)

### Applications

- Desktop PC
- Server
- Workstation
- Video Game Console

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

Created on: 8/17/2019