

## FAN302HLMY\_F117

# mWSaver™ PWM Controller for Low Standby Power Battery-Charger Applications

## Product Overview

For complete documentation, see the data sheet.

The FAN302HL\_F117 advanced PWM controller significantly simplifies isolated power supply design that requires CC regulation of the output. The output current is precisely estimated with information in the primary side of the transformer and controlled with an internal compensation circuit. This removes the output current sensing loss and eliminates all external Control Circuitry (CC). The Green-Mode function, with an extremely low operating current (200 $\mu$ A) in Burst Mode, maximizes the light-load efficiency, enabling conformance to worldwide Standby Mode efficiency guidelines.

Integrated protections include two-level pulse-by-pulse current limit, Over-Voltage Protection (OVP), brownout protection, and Over-Temperature Protection (OTP).

Compared with a conventional approach using an external control circuit in the secondary side for CC regulation, the FAN302HL\_F117 can reduce total cost, component count, size, and weight; while simultaneously increasing efficiency, productivity, and system reliability.

## Features

- mWSaver™ Technology Provides Industry's Best-in-Class Standby Power
- Achieves <math>10\text{mW}</math> Below Energy Star's 5-Star Level: <math>30\text{mW}</math>
- Proprietary 500V High-Voltage JFET Startup Reduces Startup Resistor Loss
- Low Operation Current in Burst Mode: 350 $\mu$ A Maximum
- Constant-Current (CC) Control without Secondary-Feedback Circuitry
- Fixed PWM Frequency at 85kHz with Frequency Hopping to Reduce EMI
- High-Voltage Startup
- Low Operating Current: 3.5mA
- Peak-Current-Mode Control with Slope Compensation
- Cycle-by-Cycle Current Limiting

For more features, see the data sheet