

FAN604H

Offline Quasi-Resonant PWM Controller

Product Overview

For complete documentation, see the data sheet.

The FAN604H is an advanced PWM controller aimed at achieving power density of $\sim 10\text{W}/\text{in}^3$ in universal input range AC/DC flyback isolated power supplies. It incorporates Quasi-Resonant (QR) control with proprietary Valley Switching with a limited frequency variation. QR switching provides high efficiency by reducing switching losses while Valley Switching with a limited frequency variation bounds the frequency band to overcome the inherent limitation of QR switching. FAN604H features mWSaver® burst mode operation with extremely low operating current (300 A) and significantly reduces standby power consumption to meet the most stringent efficiency regulations such as Energy Star's 5-Star Level and CoC Tier II specifications. FAN604H includes several user configurable features aimed at optimizing efficiency, EMI and protections. FAN604H has a wide blanking frequency range that improves light load efficiency and eliminating audio noise for adaptive application. It incorporates user-configurable constant current reference, which allows controlling the maximum output current from primary-side, thereby optimizing transformer design to improve the overall efficiency. It also includes several rich programmable protection features such as over-voltage protection (OVP), precise constant output current regulation (CC).

Features

- Quasi-Resonant Switching Operation with Wide Blanking Time Range
- Constant Current Reference (CCR) to Limit the Maximum output Current
- mWSaver® Technology for Ultra Low Standby Power Consumption (<20 mW)
- Programmable Over-Temperature-Protection through External NTC Resistor
- Built-In and User Configurable Over-Voltage Protection (OVP), Under-Voltage, Protection (UVP) and Over-Temperature Protection (OTP)
- Forced and Inherent Frequency Modulation of Valley Switching for Low EMI Emissions and Common Mode Noise

Benefits

- Higher average efficiency
- Optimization Transformer Design for Adaptive Charger Application
- Low standby power
- Accuracy Over Temperature Protection
- Various protections
- Better EMI suppression and Common Mode Noise

Applications

- This product is general usage and suitable for many different applications.

End Products

- Travel Adapter