

FAN6604

Green-Mode PWM Controller for Flyback Converter, 65KHz, Brown In/Out Protection

Product Overview

For complete documentation, see the data sheet.

The highly integrated FAN6604 PWM controller provides several features to enhance the performance of flyback converters. To minimize standby power consumption, a proprietary Green-Mode function provides off-time modulation to continuously decrease the switching frequency under light-load conditions.

Under zero-load and very light-load conditions, FAN6604 saves PWM pulses by entering "deep" Burst Mode. Burst Mode enables the power supply to meet international power conservation requirements.

FAN6604 also integrates a frequency-hopping function that helps reduce EMI emission of a power supply with minimum line filters. The built-in synchronized slope compensation helps achieve stable peak-current control. Add in current limit to keep constant output power over universal AC input range. The gate output is clamped at 13 V to protect the external MOSFET from over-voltage damage.

Other protection functions include AC input brownout protection with hysteresis, sense pin short-circuit protection, and VDD over-voltage protection. For over-temperature protection, an external NTC thermistor can be applied to sense the external switcher's temperature. When VDD OVP or OTP are activated, an internal latch circuit is used to latch-off the controller. The Latch Mode is reset when the VDD supply is removed.

FAN6604 is available in an 8-pin SOP package.

Features

- High-Voltage Startup
- AC Input Brownout Protection with Hysteresis
- Line Compensation by Current Limit
- Low Operating Current: 1.5 mA
- Linearly Decreasing PWM Frequency to 22 kHz with Cycle Skipping
- Frequency Hopping to Reduce EMI Emission
- Fixed PWM Frequency: 65 kHz
- Peak-Current-Mode Control
- Cycle-by-Cycle Current Limiting
- Leading-Edge Blanking (LEB)

For more features, see the data sheet

Applications

- LCD Monitor
- LCD TV
- Motion Control - Industrial Motor