

Product Overview

FAN6602R: 6Pin Green-Mode PWM Controller for Flyback Converter, 65KHz

For complete documentation, see the data sheet.

A highly integrated PWM controller, FAN6602R provides several features to enhance the performance of flyback converters. To minimize standby power consumption, a proprietary Green Mode provides off-time modulation to continuously decrease the switching frequency under light-load conditions. Under zero-load conditions, the power supply enters Burst Mode, which completely shuts off PWM output. Output restarts just before the supply voltage drops below the Under-Voltage Lockout (UVLO) lower limit. Green Mode enables power supplies to meet international power conservation requirements. The FAN6602R is designed for SMPS and integrates a frequency-hopping function that helps to reduce EMI emission of a power supply with minimum line filters. To compensate the power limit variation over universal input range, a current limit (VLIMIT) adaptively keeps the power limit substantially constant. The gate output is clamped at 13.5 V to protect the external MOSFET from over-voltage damage. Other protection functions include VDD Over-Voltage Protection (OVP), and Over-Temperature Protection (OTP). For OTP, an external NTC thermistor can be applied to sense the ambient temperature.

Features

- Low Startup Current: 8 μ A
- Low Standby Power: Under 0.1 W
- Low Operating Current in Green Mode: 600 μ A
- PWM Frequency Continuously Decreasing with Cycle Skipping and Burst Mode at Light Loads
- Fixed PWM Frequency (65 kHz) with Frequency Hopping
- Full Range Frequency Hopping
- Peak-Current Mode Operation with Cycle-by-Cycle Current Limiting
- Constant Output Power Limit (Full AC Input Range)
- VDD Over-Voltage Protection (OVP)
- Feedback Open-Loop Protection: 60 ms Delay

For more features, see the data sheet

Applications

- DVD
- External AC-DC Merchant Power Supply - Wireless Communications
- Notebook PC
- STB
- Wireless LAN Access Point/Router

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Topology	Phases	Control Mode	V _{CC} Min (V)	V _{CC} Max (V)	f _{sw} Typ (kHz)	Package Type
FAN6602RM6X	0.25	Pb-free Halide free non AEC-Q and PPAP	Active	Flyback	1	Current Mode	15	17	65	TSOT-23-6

For more information please contact your local sales support at www.onsemi.com.

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