

Product Overview

FAN302UL: Primary-Side-Regulation PWM Controller

For complete documentation, see the data sheet.

This highly integrated PWM controller provides several features to enhance the performance of flyback converters. The constant-current-control, proprietary topology enables simplified designs without secondary feedback circuitry for battery-charger applications. A proprietary Burst-Mode function with low operation current minimizes standby power consumption.

The FAN302UL controller also provides several protections. Cycle-by-cycle current limiting ensures the fixed peak current limit level, even if a short circuit occurs. The gate output is clamped at 15V to protect the power MOS from high gate-source voltage conditions. If either V_S OVP or internal OTP is triggered, the circuit enters Latch Mode until AC power is removed.

Using FAN302UL, a charger can be implemented with few external components and minimized cost, compared to a conventional design or a linear transformer.

Features

- Ultra-Low Standby Power: Under 20mW at 264V_{AC}
- Constant-Current (CC) Control without Secondary-Feedback Circuitry
- Fixed PWM Frequency at 140kHz with Frequency Hopping to Solve EMI Problems
- High-Voltage Startup
- Low Operating Current: 3.5mA
- Peak-Current-Mode Control in CV Regulation
- Cycle-by-Cycle Current Limiting
- V_{DD} Over-Voltage Protection (Auto-Restart)
- V_S Over-Voltage Protection (Latch Mode)
- VDD Under-Voltage Lockout (UVLO)

For more features, see the data sheet

Applications

- Mobile Handsets

Part Electrical Specifications

Product	Compliance	Status	Topology	Phases	Control Mode	V _{CC} Min (V)	V _{CC} Max (V)	f _{sw} Typ (kHz)	Package Type
FAN302ULMY	Pb-free Halide free	Active				15	17		SOIC-8

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

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