

Current Mode PWM Controller With Frequency Shuffling

General Description

ME8109 integrates a PWM controller and high voltage power MOSFET of 600V or 650V. ME8109 has the features of very low standby power (<100mW) when AC power above 220Vac. and cost effective offline flyback converter applications in 18W range. ME8109 offers complete protection coverage with automatic self-recovery feature including Cycle-by-Cycle current limiting (OCP), CS short protection, over load protection (OLP), and VDD under voltage lockout (UVLO) and latch feature including over temperature protection (OTP), over voltage (fixed or adjustable) protection(OVP). Excellent EMI performance is achieved with frequency shuffling technique together with soft switching control at the totem pole gate drive output. Tone energy at below 20KHz is minimized in the design and audio noise is eliminated during operation.

Typical Application

Offline AC/DC flyback converter for

- Switching AC/DC Power battery charge
- Digital cameras and camcorder adapter
- Set-top box power
- Auxiliary power supply for PC and server
- Open-frame SMPS

Features

- Power on Soft Start Reducing MOSFET V_{DS} Stress
- Frequency shuffling for EMI
- Audio Noise Free Operation
- Extended Burst Mode Control For Improved Efficiency and Minimum Standby Power Design
- Internal Synchronized Slope Compensation
- Fixed 65KHz Switching Frequency
- Good protection coverage with auto self-recovery
 - * VDD Under Voltage Lockout with Hysteresis (UVLO)
 - * Over Temperature Protection (OTP)
 - * Cycle-by-cycle over current threshold setting for constant output power limiting over universal input voltage range
 - * Overload Protection (OLP) with auto-recovery
 - * VDD Over voltage Protection(OVP)
 - * Adjustable OVP through external Zener
 - * CS floating protection with auto-recovery
 - * CS short protection with auto-recovery

Package

- 8-pin DIP8