

High Performance Current-Mode PWM Power Switch

Unauthorized Photocopy and Duplication Prohibited

Features

- Less Than 75mW Standby Power Consumption at 230VAC with Typical Application Circuit
- Integrated 6N 650V MOSFET
- Multi-Mode Operation:
 Fixed 65kHz@Heavy Load
 Green mode@ Middle and Light Load
 Burst Mode@ No Load
- Ultra Low start-up and low operation current for Improved Efficiency and Low Standby Power Consumption
- Power on 4ms Soft Start
- Over Load Protection(OLP) and Cycle-by-Cycle Current Limiting Protection(OCP)
- Over voltage protection(OVP), Over temperature protection(OTP), VDD over voltage clamp and under voltage lockout with hysteresis(UVLO)
- DIP8 Pb-free Package

Applications

- AC/DC Adapter
- Cell Phone Charger
- Auxiliary Power
- Linear Regulator/RCC Replacement

Simplified Application

General Description

The SP6620DHP integrated a current mode PWM controller and a high voltage power MOSFET. It is specifically designed for low standby power consumption and high efficiency offline fly-back SMPS.

SP6620DHP operates in the fixed frequency at heavy load and operates in Green Mode at no load or light load. Slope compensation circuit is integrated in SP6620DHP, which improves system large signal stability and reduces the possible sub-harmonic oscillation at high PWM duty cycle. Leading-edge blanking on current sense input eliminates the signal glitch due to snubber circuit diode reverse recovery current. Frequency Shuffling technique is integrated in SP6620DHP, which helps to achieve excellent EMI performance.

SP6620DHP offers complete protection functions with auto-recovery including cycle-by-cycle current limiting protection (OCP), over load protection (OLP), VDD over voltage protection(OVP), VDD over voltage clamp and under voltage lockout (UVLO). Driven by internal totem pole can improve the properties of IMI system and soft switching control. SP6620DHP is offered in DIP8 Pb-free package



Figure 1.Simplified Application of SP6620DHP