

Unauthorized Photocopy and Duplication Prohibited

### Features

- ◆ Less than 75mW standby power consumption at 230VAC with typical application circuit
- ◆ Integrated 750V BJT
- ◆ Primary-side sensing and regulation without TL431 and opto-coupler
- ◆ BCM fast start up technology
- ◆ No need for control loop compensation
- ◆ Less than  $\pm 5\%$  constant voltage and current regulation at universal AC input
- ◆ Ultra Low start-up and low operation current
- ◆ Built-in Leading Edge Blanking(LEB)
- ◆ Programmable cable drop compensation
- ◆ Multi-mode PWM and PFM operation for efficiency improving.
- ◆ Output Over Voltage Protection,VDD OVP and Clamp,Cycle-by-Cycle Current Limiting
- ◆ SOP7 Package

### Applications

- ◆ Small Power Adapter
- ◆ Cell Phone Charger
- ◆ Digital Cameras Charger
- ◆ Linear Regulator/RCC Replacement

### General Description

SP2608F is a high performance offline PSR power switch for low power AC/DC charger and adapter applications. It operates in primary-side sensing and regulation. Thus, opto-coupler and TL431 are not required. In CC control, the output current and power setting can be adjusted externally by the sense resistor  $R_{CS}$  at CS PIN. In CV control, multi-mode operations are utilized to achieve high performance and high efficiency. In addition, good load regulation is achieved by the built-in cable drop compensation. SP2608F operates in PFM in CC mode, and it operates in PWM+PFM in CV mode with frequency reduction at light/medium load. The chip consumes very low operation current. It achieves less than 75mW standby power to meet all global energy efficiency regulations.

SP2608F offers comprehensive protection coverage with auto-recovery feature including Cycle-by-Cycle current limiting, VDD over voltage protection (OVP), output over voltage protection, load short circuit protection, VDD under voltage lockout (UVLO), OTP etc.

SP2608F is offered in SOP7 packages.

### Simplified Application

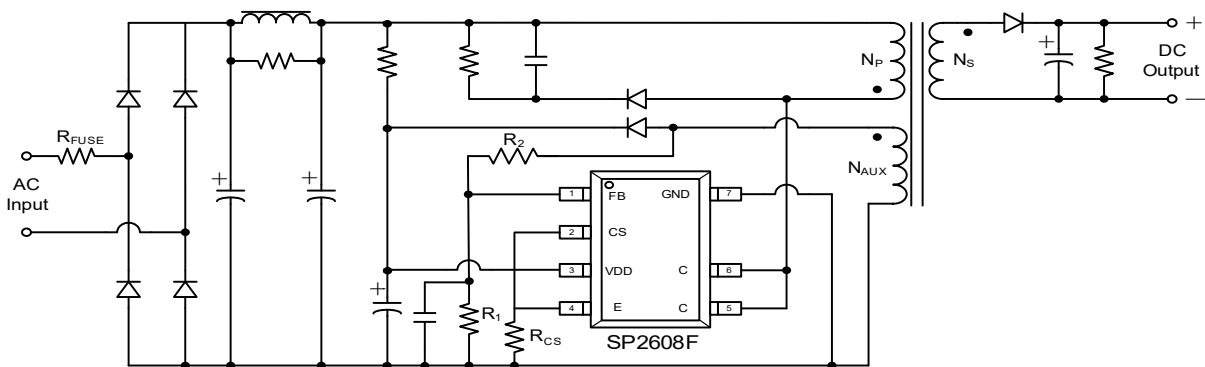


Figure 1. Simplified Application of SP2608F