Constant-Voltage Constant-Current Flyback Controller Using Opto-Coupled Feedback

DESCRIPTION

The EUP9268 is a high performance AC-DC power supply controller which provides constant output voltage (CV) using the Secondary Side Regulation (SSR) and accomplishes constant output current (CC) through Primary-side Regulation (PSR) techniques.

The device together with an external depletion mode NFET provides a fast start-up time without consuming extra power dissipation in no-load. The drive output interfaces to a MOSFET power switch. Discontinuous conduction mode (DCM) with valley-switching effectively reduces switching losses.

The controller operates in pulse width modulation mode (PWM) or pulse frequency modulation mode (PFM) automatically to keep the conversion high efficiency within the line ranges and contains thermal shutdown function, over-voltage protection and over-current protection. A wide switching frequency range from 170Hz to 100kHz can achieve both less than 30mW no-load power dissipation and high average active efficiency.

FEATURES

- <30mW No-Load Power.
- ±1% Voltage Regulation and ±5% Current Regulation
- Clamped Gate-Driver Output for MOSFET
- 170Hz ~ 100kHz Switching Frequency
- Tiny External Components
- Opto-Coupler Feedback of CV and Primary Side Regulation(PSR) for CC
- Active Start-up Scheme Enables Fastest Possible Start-up.
- Available in SOT23-6 and SOP-8 Packages
- RoHS Compliant and 100% Lead (Pb)-Free
- Halogen-Free

APPLICATIONS

- Adapters for Consumer Electronics
- AC/DC Power

Typical Application Circuit

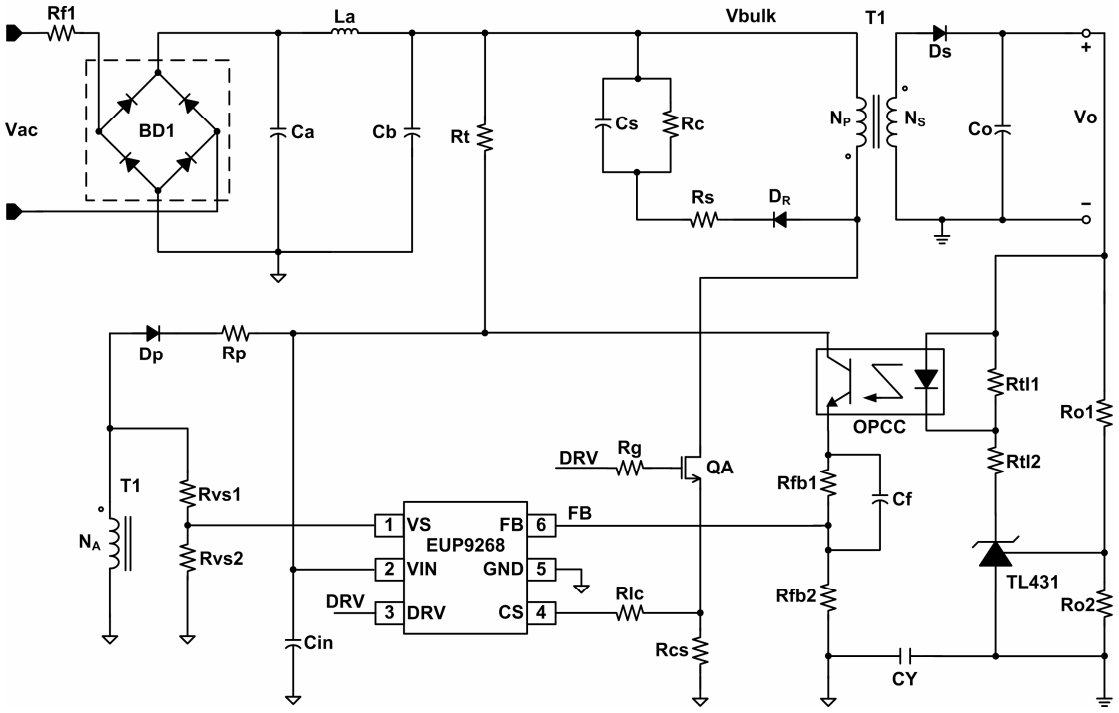


Figure 1. SOT23-6 Typical Application Circuit