



# High Efficiency AC/DC PWM Controller

## DESCRIPTION

The EUP9501 is a high efficiency current mode PWM controller. It feature Continuous Conduction Mode (CCM) and valley switching muti-mode control to optimize the control performance.

PWM switching frequency at normal operation is internal fixed and is trimmed along with the load change. When the output loading is getting lower, the EUP9501 switching frequency decreases from 65KHz to 25KHz gradually then further gets into burst mode operation for light load efficiency. But in high AC voltage, EUP9501 will change the curve of the frequency to achieve higher efficiency. It includes low startup current, green-mode power-saving operation, leading-edge blanking of the current sense and internal slope compensation. In addition, all the required protections of OLP (Over Load Protection) and OVP (Over Voltage Protection) to prevent circuit from damage under abnormal conditions. And integrated in a tiny SOT23-6 package, can be completely fulfilled with minimized external components.

## FEATURES

- Very Low Startup Current (<1200nA)
- Current Mode Control
- UVLO (Under Voltage Lockout)
- Fixed 65KHz Switching Frequency
- OCP (Cycle-by-Cycle Over Current Protection) on CS Pin
- OLP (Over Load Protection) with 80mS Delay
- OVP (Over Voltage Protection) through VCC Pin for Internal
- OVP (Over Voltage Protection) through OVP Pin for External Adjust
- Internal Slope Compensation
- 100/-500mA Driving Capability Applications
- Embedded Soft Start 6.5mS High-Efficiency Single-Stage Power Conversion
- Available in SOT23-6 Package
- RoHS Compliant and 100% Lead (Pb)-Free Halogen-Free

## APPLICATIONS

- Switching AC/DC Adapter
- Switching Battery Charger
- Open Frame Power Supply

## Typical Application Circuit

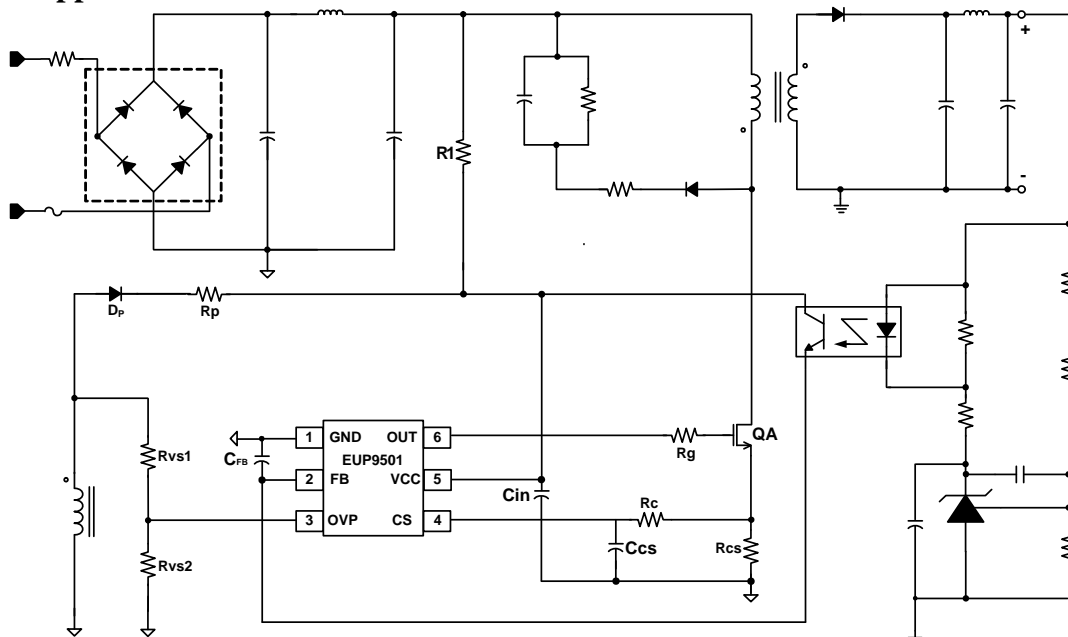


Figure 1. Typical Application