

HL9750FN

Secondary-Side MOSFET Integrated Synchronous Rectifier Controller for Flyback Converters

Overview

The HL9750FN is a secondary-side MOSFET integrated synchronous rectifier (SR) controller for isolated flyback converters. By implementing proprietary turn-off control algorithm, the HL9750FN can reliably support discontinuous conduction mode (DCM), quasi-resonant (QR), and continuous conduction mode (CCM), which will help to design robust flyback converters.

Features

- Integrated 12m Ω R_{ds(on)} MOSFET
- Compatibility of continuous conduction mode (CCM), quasi-resonant (QR), and discontinuous conduction mode (DCM)
- Compatible with high side and low side applications
- Wide input voltage ranges up to 26.5V
- Optimized SR gate turn-off threshold control
- Proprietary CCM SR turn-off control algorithm
- Minimized SR turn-on/off propagation delay
- SR MOSFET gate passive clamp
- Low power saving mode
- Highly efficient QFN5x6 package

Applications

- USB PD Quick Chargers for Smartphones, Feature Phones, and Tablet PCs
- Power Adapters for Portable Devices
- Flyback Power Supplies with Fixed or Variable Output Voltage

Simplified Application Diagrams

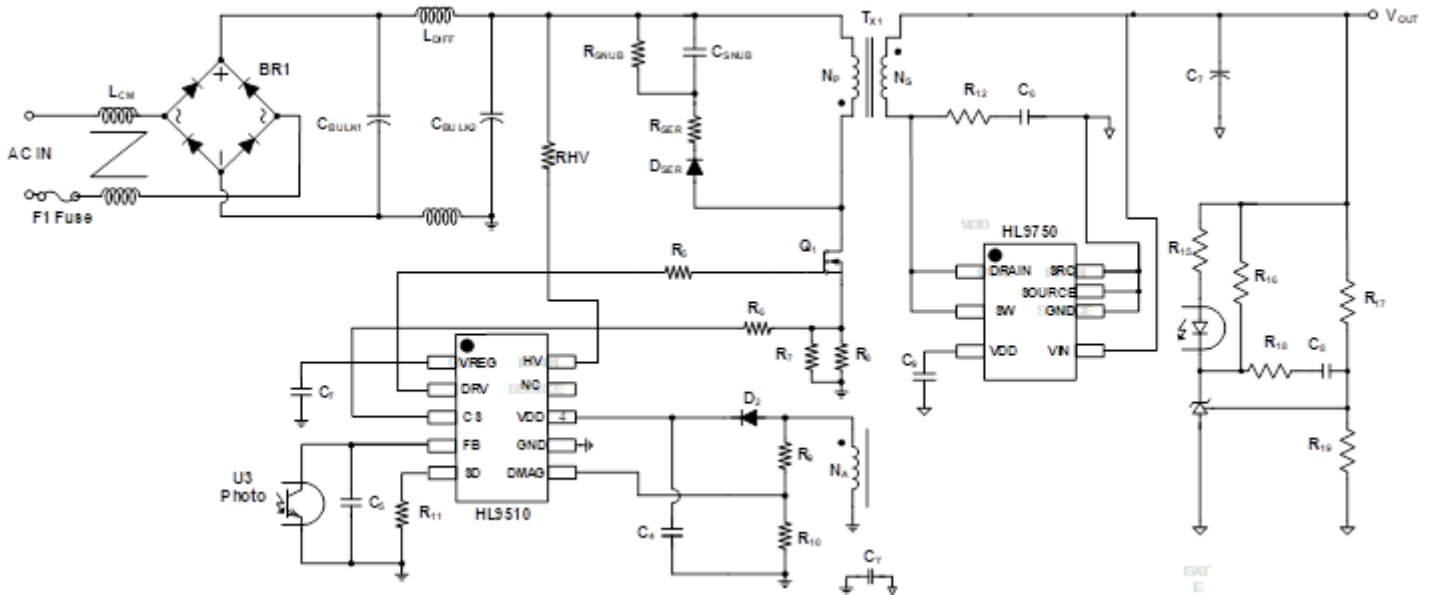


Figure 1. Low Side SR Application Diagram

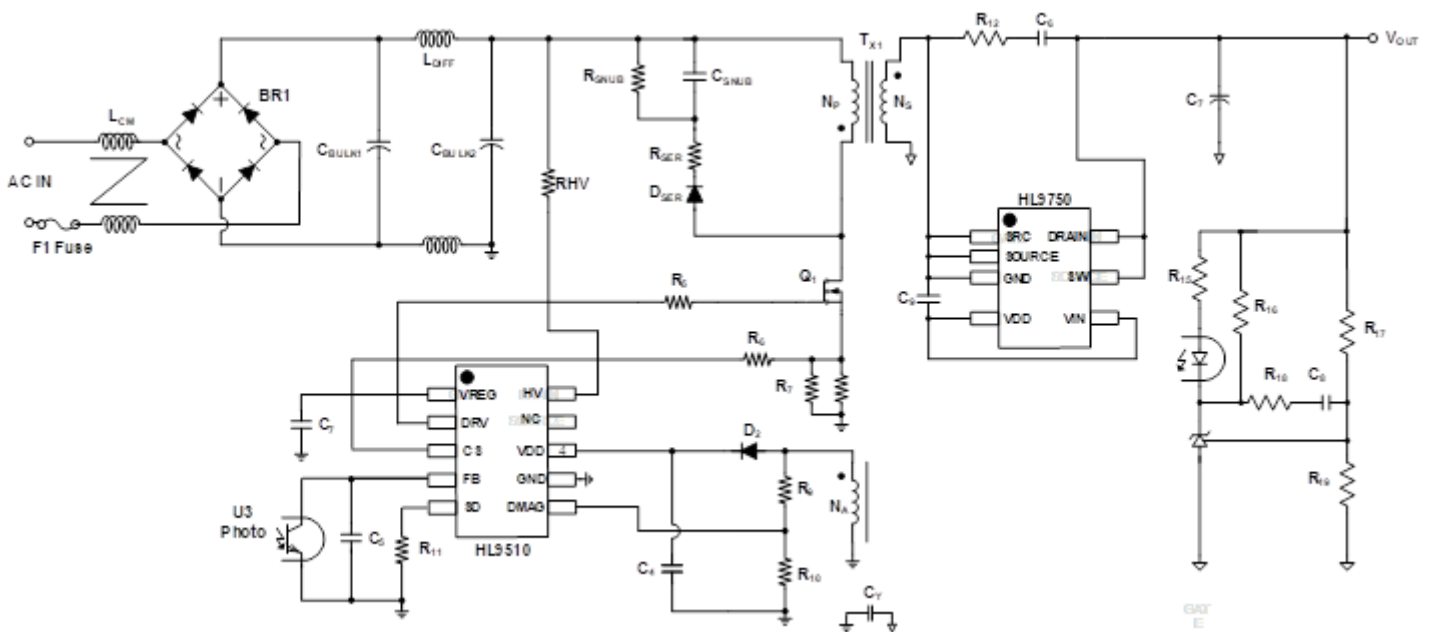


Figure 2. High Side SR Application Diagram

Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
HL9750FN01	-40°C to +125°C	QFN 5x6	5K/Tape & Reel

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