

HV-mWTM、 η -BalanceTM PWM Controller Fixed 65KHz Fsw

FEATURES

- ◆ Proprietary HV-mWTM to Achieve Less than 50mW Standby Power
- ◆ Proprietary η -BalanceTM Control to Boost Light Load Efficiency
- ◆ Proprietary “Zero OCP/OPP Recovery Gap” Control
- ◆ Latch Plug-off Protection with External Triggering
- ◆ Fixed 65KHz Switching Frequency
- ◆ Built-in Soft Start Function
- ◆ Pin Floating Protection
- ◆ Frequency Reduction and Burst Mode Control for Energy Saving
- ◆ Current Mode Control
- ◆ Built-in Frequency Shuffling
- ◆ Built-in Synchronous Slope Compensation
- ◆ Cycle-by-Cycle Current Limiting
- ◆ Leading Edge Blanking (LEB)
- ◆ Constant Power Limiting
- ◆ Audio Noise Free Operation
- ◆ VDD UVLO, OVP & Clamp

APPLICATIONS

Offline AC/DC Flyback Converter for

- ◆ AC/DC Adaptors
- ◆ Open-frame SMPS
- ◆ Print Power, Scanners, and Motor Drivers

GENERAL DESCRIPTION

SF5580 is a high performance, highly integrated current mode PWM controller for medium to large offline flyback power converter applications.

In SF5580, PWM switching frequency with shuffling is fixed to 65KHz and is trimmed to tight range. When the output power demands decrease, the IC decreases switching frequency based on the proprietary η -BalanceTM control to boost power conversion efficiency at the light load. SF5580 also integrates proprietary HV-mWTM technology to achieve less than 50mW standby power.

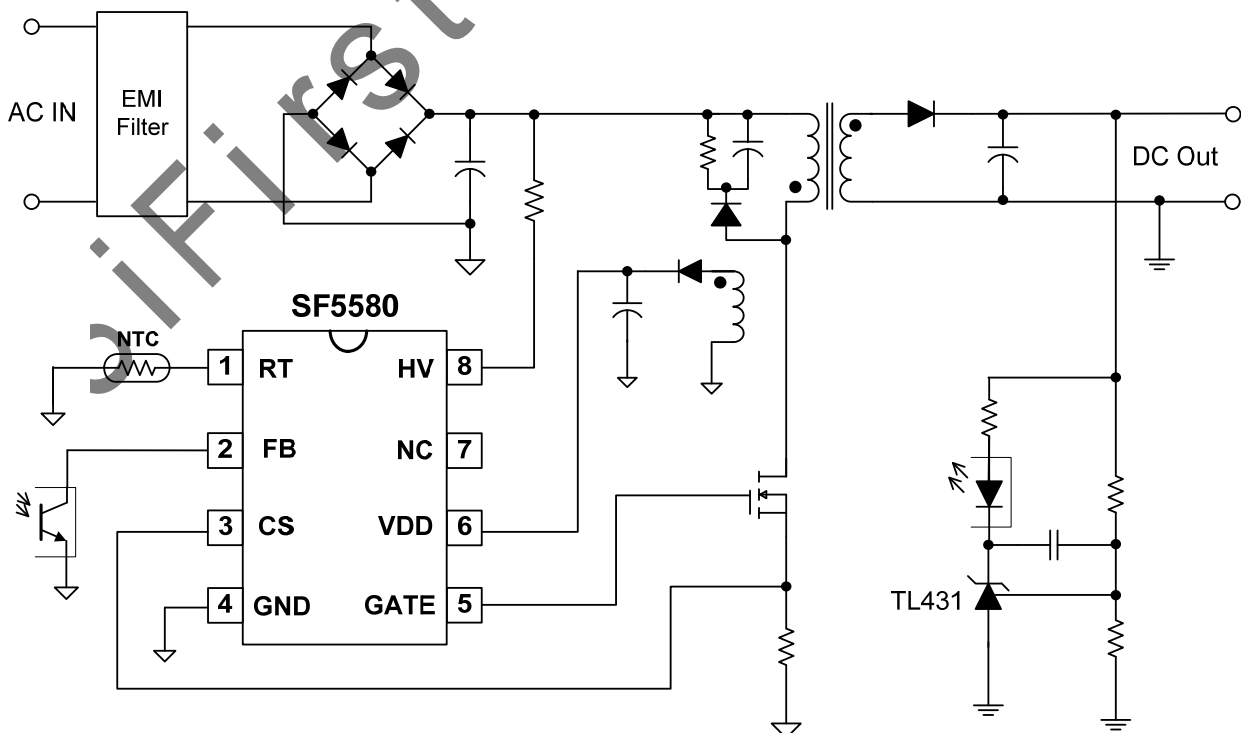
SF5580 can achieve “Zero OCP/OPP Recovery Gap” using SiFirst’s proprietary control algorithm. SF5580 also has built in proprietary “Audio Noise Free OCP Compensation”, which can achieve constant power limiting and can achieve audio noise operation at heavy loading when line input is around 90VAC.

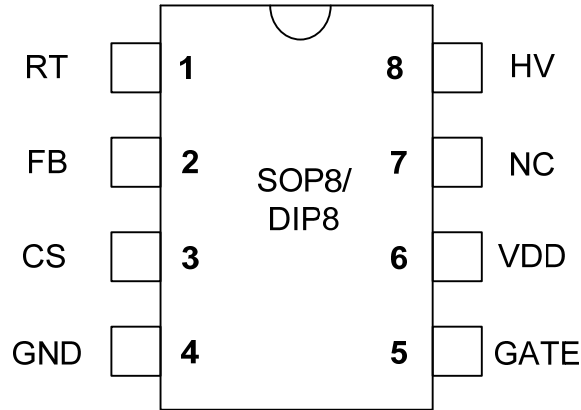
SF5580 integrates functions and protections of Under Voltage Lockout (UVLO), VCC Over Voltage Protection (OVP), Cycle-by-cycle Current Limiting (OCP), External Programmable Over Temperature Protection (OTP), Pin Floating Protection, Over Load Protection (OLP), Soft Start, Gate Clamping, VCC Clamping, etc.

In SF5580, the OTP, VDD OVP, and RT-pin triggered protections are **Latch Plug-off** protection. The other protection functions are auto-recovery mode protection.

SF5580 is available in SOP8 and DIP8 packages.

TYPICAL APPLICATION



Pin Configuration

Ordering Information

| Part Number | Top Mark | Package | | Tape & Reel |
|-------------|-----------|---------|-------|-------------|
| SF5580SG | SF5580SG | SOP8 | Green | |
| SF5580SGT | SF5580SGT | SOP8 | Green | Yes |
| SF5580DP | SF5580DP | DIP8 | RoHS | |

Marking Information
