FEATURES

- **Less than 75mW Standby Power**
- **Programmable OLP Debounce Time**
- **Proprietary η-Balance™ Control to Boost Light Load Efficiency**
- **Proprietary "Zero OCP/OPP Recovery Gap" Control**
- **Proprietary "Audio Noise Free OCP Compensation"**
- **Fixed 65KHz Switching Frequency**
- **Built-in Frequency Shuffling**
- **Built-in Soft Start Function**
- **Frequency Reduction and Burst Mode Control for Energy Saving**
- **Built-in Synchronous Slope Compensation**
- **Cycle-by-Cycle Current Limiting**
- **Built-in Leading Edge Blanking (LEB)**
- **Current Mode Control**
- **Pin Floating Protection**
- **Very Low Startup Current**
- **Audio Noise Free Operation**
- **VDD UVLO, OVP & Clamp**

APPLICATIONS

Offline AC/DC Flyback Converter for

- **AC/DC Adaptors**
- **Open-frame SMPS**

GENERAL DESCRIPTION

SF5533H is a high performance, high efficiency, highly integrated current mode PWM controller for offline flyback converter applications. The OLP debounce time can be programmed in SF5533H.

In SF5533H, 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 -Balance™*** control to boost power conversion efficiency at the light load. When output power falls below a given value, the IC enters into burst mode and can achieve less than 75mW no load power.

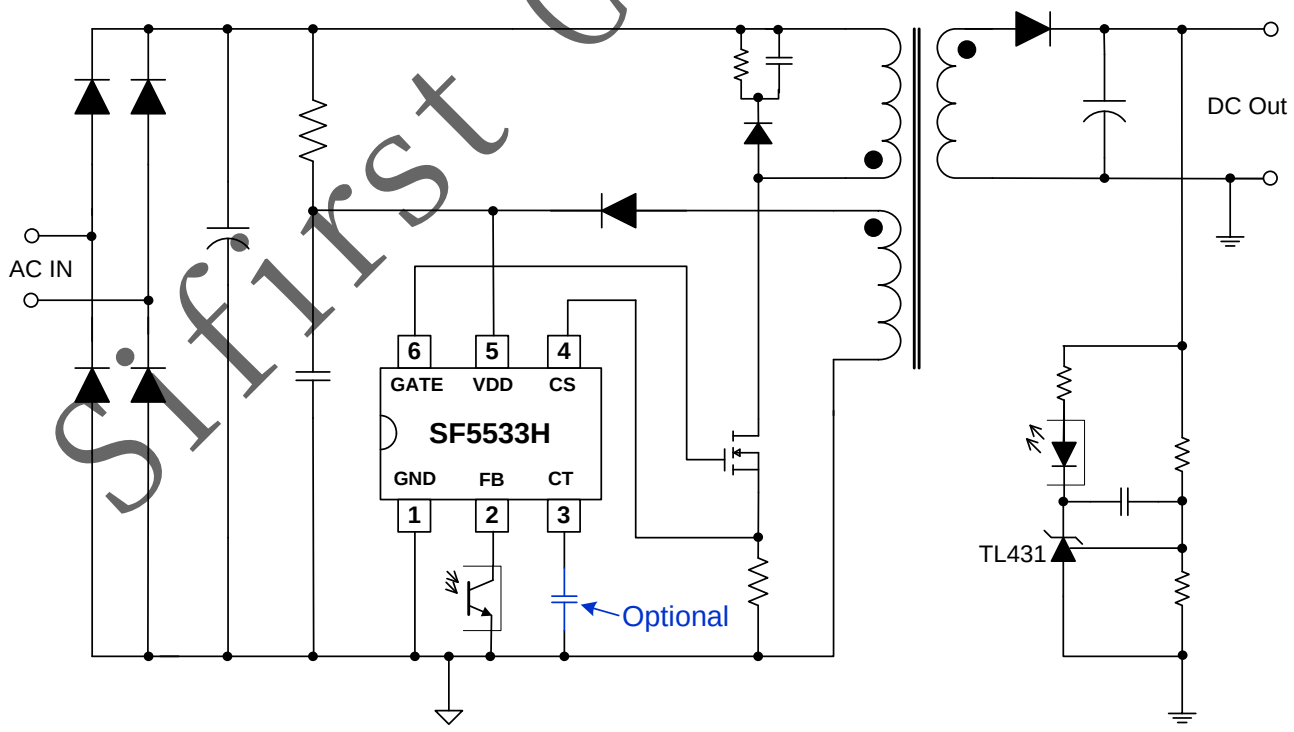
The IC can achieve "***Zero OCP/OPP Recovery Gap***" using SiFirst's proprietary control algorithm. SF5533H also has built in proprietary "***Audio Noise Free OCP Compensation***", which can achieve constant power limiting and can achieve audio noise operation at heavy loading when line input is around 90VAC.

SF5533H integrates functions and protections of Under Voltage Lockout (UVLO), VDD Over Voltage Protection (OVP), Cycle-by-cycle Current Limiting (OCP), Pins Floating Protection, Over Load Protection (OLP), Gate Clamping, VDD Clamping, Leading Edge Blanking (LEB), Soft Start, etc.

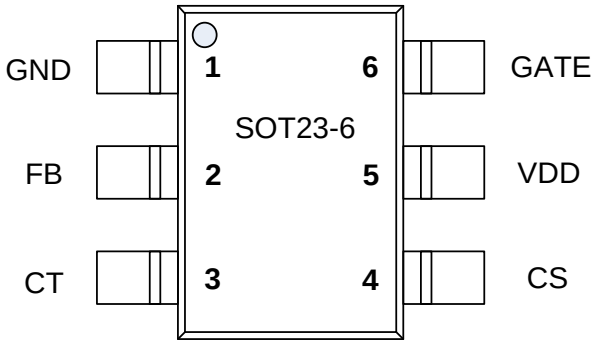
SF5533H is available in SOT23-6 and DIP-8 packages.

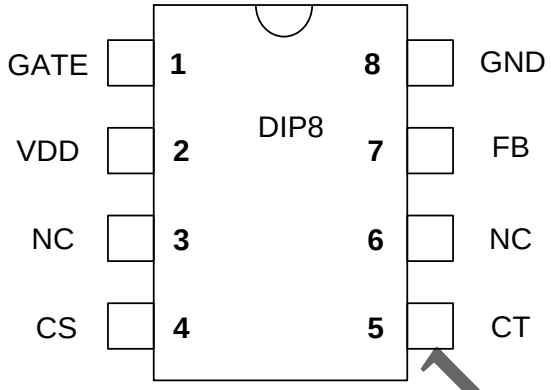
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TYPICAL APPLICATION



Pin Configuration

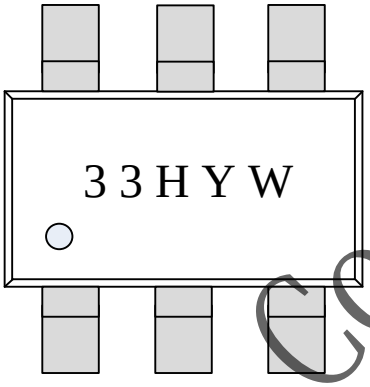




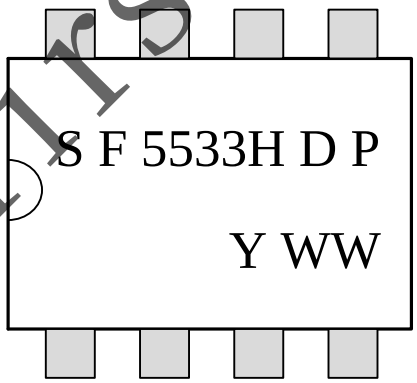
Ordering Information

Part Number	Top Mark	Package		Tape & Reel
SF5533HLGT	.33HYW	SOT26	Green	Yes
SF5533HDP	SF5533HDP	DIP8	RoHS	

Marking Information



Dot: Pin1 Mark
33H:Part number SF5533H
YW: Year&Week Code



YWW: Year&Week code

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