

FEATURES

- ◆ Proprietary Super- SR™ Technology
- ◆ Synchronous Rectification Controller
- ◆ Suited for High-Side and Low-Side of Flyback Converters in QR,DCM and CCM Operation
- ◆ Built In 1.25V Reference Voltage and Error Amplifier For Eliminating XX431(for Low-side)
- ◆ Programable Green Mode Control for Energy Saving at Light Load
- ◆ <1mA Quiescent Current for Energy Saving
- ◆ Primary-Side On Time Expansion and Shrink Protection
- ◆ VDD Range From 3.5V to 5.5V

APPLICATIONS

Offline AC/DC Flyback Converter for

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

GENERAL DESCRIPTION

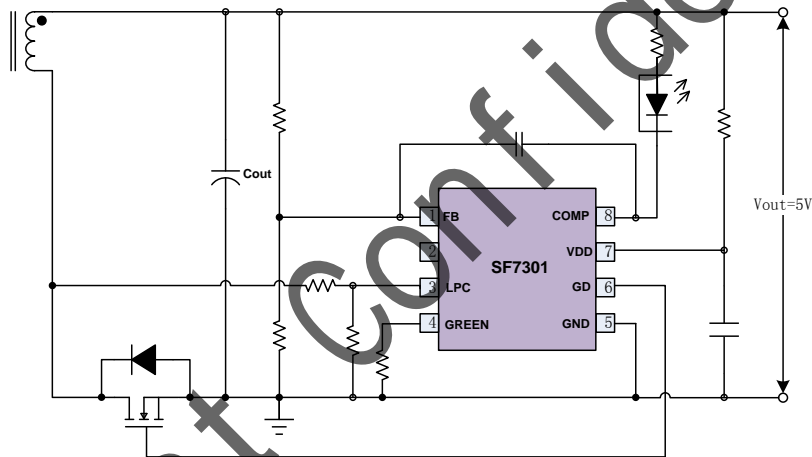
SF7301 is a secondary-side Synchronous Rectification (SR) controller to drive SR MOSFET for improved efficiency.

SF7301 can be applied in Continuous or Discontinuous Conduction Mode(CCM and DCM) and Quasi-Resonant(QR) flyback converters based on a proprietary **Super- SR™** Control for SR MOSFET. The IC builds in a high precision reference voltage (1.25V) and an error amplifier to eliminating XX431 for cost saving.

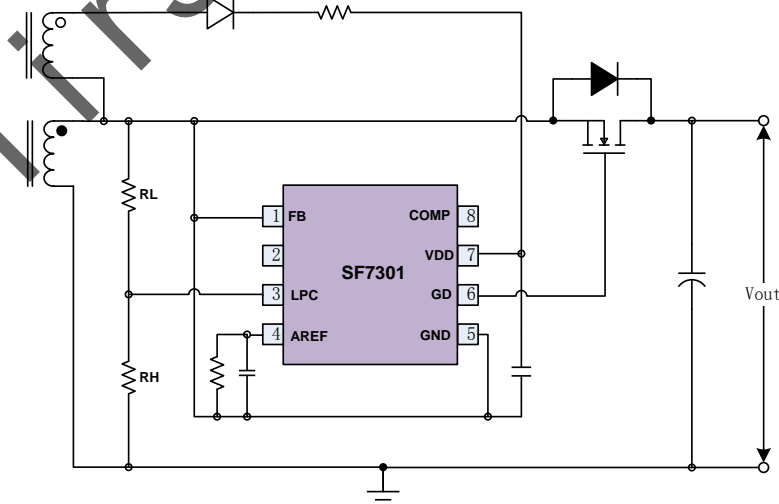
SF7301 integrates functions and protections of Under Voltage Lockout(UVLO),VDD Clamper, Primary-side MOSFET on time Expansion and Shrink Protections ,etc.

SF7301 is available in SOP-8 package.

TYPICAL APPLICATION



Low side SR application



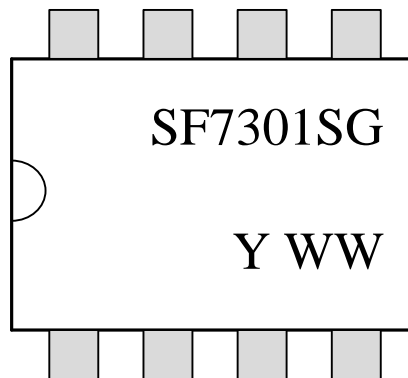
High side SR application

Pin Configuration

Ordering Information

Part Number	Top Mark	Package		Tape & Reel
SF7301SG	SF7301SG	SOP8	Green	Yes

Marking Information



YWW: Year&Week code

Pin Description

Pin Num	Pin Name	I/O	Description
1	FB	I	Inverting input of the error amplifier. If not be used, this pin should be connected to GND
2	NC	\	
3	LPC	I	Winding detection. This pin is used to detect the voltage on the winding and calculate the area of the winding signal during the on time period of the primary GATE.
4	GREEN	I	Program a voltage reference with a resistor form GREEN to GND, to enable synchronous rectification MOSFET drive signal
5	GND	P	IC ground pin
6	GD	O	Totem-pole gate driver output to drive the external MOSFET.
7	VDD	P	IC power supply pin.
8	COMP	O	Output of the error amplifier. A feedback network is placed between this pin and PIN1.