super-PFC/PSR™ Controller for LED Lighting

FEATURES

- ***super*-PFC/PSR™ Control Supports Both Primary Side Regulation (PSR) and Secondary Side Regulation (SSR)**
- **Pin Compatible with Popular PFC Controllers**
- **THD<10% using *min*-THD™ Technique**
- **Built-in AC Line and Load Compensation for High Precision LED Output Current**
- **Highly Linear Analog Multiplier with "Frequency Adjusting" for High PF**
- **Max. 90KHz Frequency Clamping for EMI**
- **LED Open/Short Protection**
- **Burst Mode Control @ Light Loading**
- **Trimmed 1.5% Internal Voltage Reference**
- **Very Low Startup Current**
- **Under Voltage Lockout with 11.7V Hysteresis**
- **Built-in Soft Start**
- **Clear External EA Feedback Network before Power On**
- **Cycle-by-Cycle Current Limiting**
- **Built-in Leading Edge Blanking (LEB)**
- **VCC Over Voltage Protection (OVP)**
- **Audio Noise Free Operation**
- **10V to 32V Wide Range of VCC Voltage**
- **500mA Drive Capability**

APPLICATIONS

- **LED Lighting Application**

GENERAL DESCRIPTION

SFL900C is a high performance, high power factor flyback PWM controller special for LED lighting applications. The IC adopts unique ***super*-PFC/PSR™** which can support both PSR and SSR applications.

SFL900C is pin compatible with mainstream PFC controllers such as XX6561/6562, XX7527, etc. SFL900C also integrates proprietary ***min*-THD™**, technique, which can achieve less than 10% THD for universal line input.

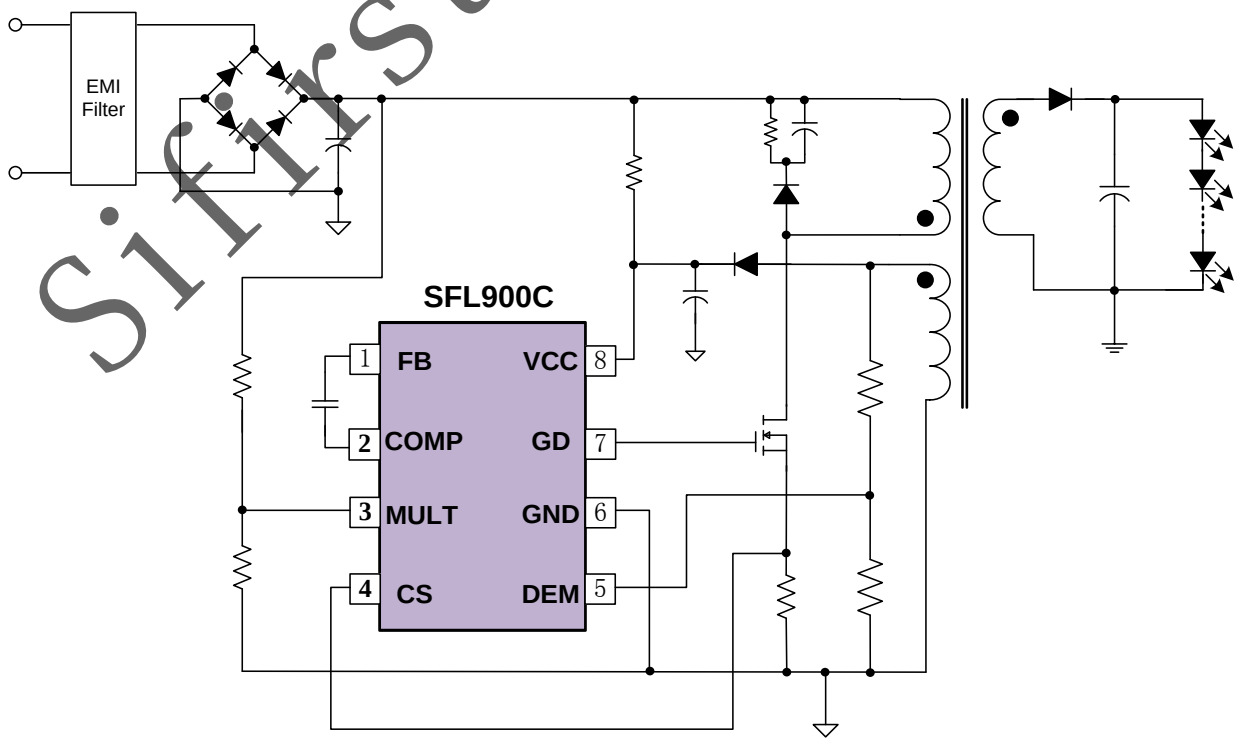
SFL900C has built-in ***Load CC Compensation*** and ***AC Line CC Compensation*** function, which can further increase LED output CC accuracy. The IC has Max. 90KHz Frequency Clamping function and soft totem pole Gate driver to improve system conduction and radiation EMI. The IC will Clear External EA Feedback Network before IC power on, which can reduces startup LED current spike. The IC also has Soft Start control during power on period.

In SFL900C, the proprietary "Frequency Adjusting" can help to improve THD performance, while ensures audio noise free operation.

SFL900C integrates functions and protections of Under Voltage Lockout (UVLO), LED Open/Short Protection, VCC Over Voltage Protection (OVP), Load Over Voltage Protection (Load OVP), Soft Start, Cycle-by-cycle Current Limiting (OCP), Burst Mode Control @ Light Loading, GD Clamping, VCC Clamping, etc.

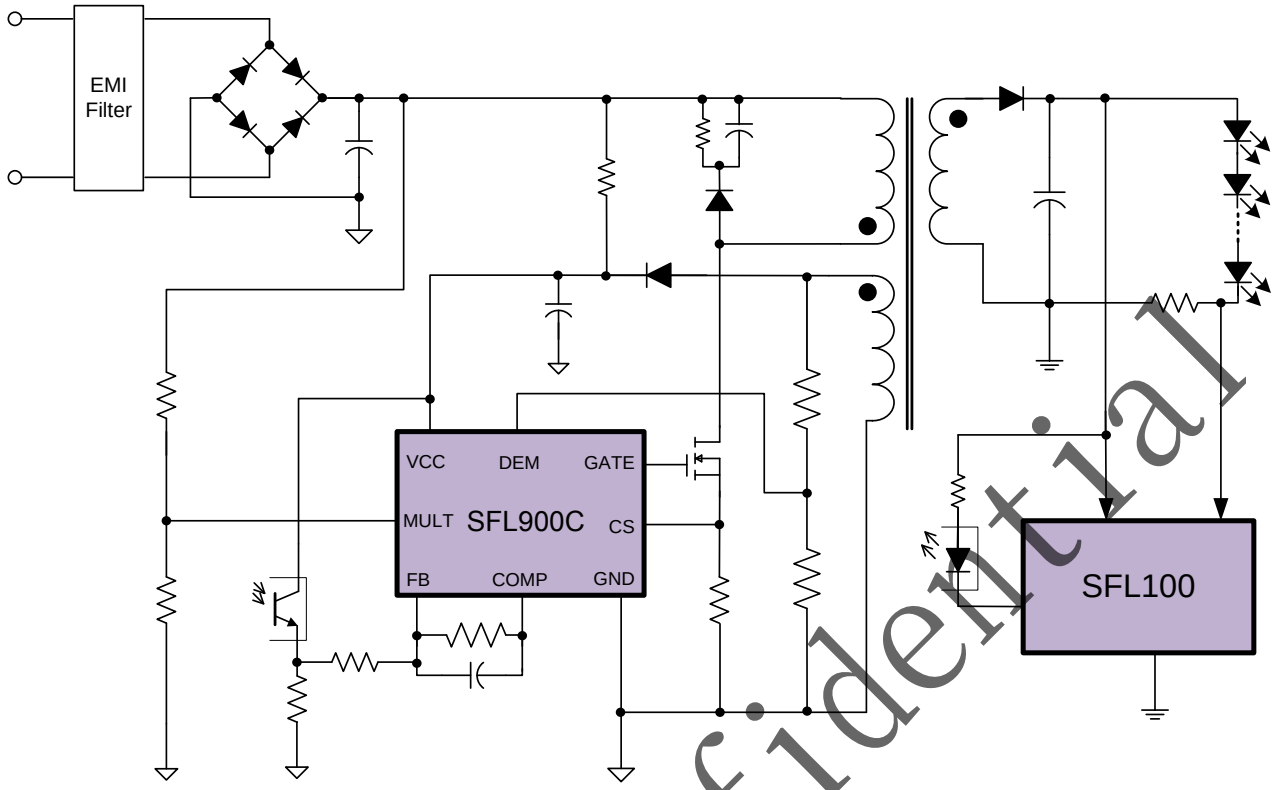
SFL900C is available in SOP-8 and DIP-8 packages.

TYPICAL APPLICATION (PSR Application)

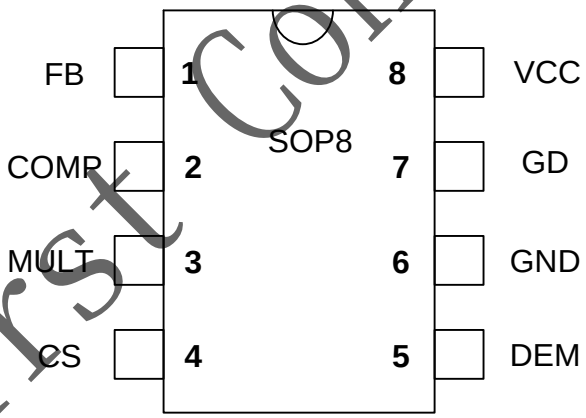


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TYPICAL APPLICATION (SSR Application)



Pin Configuration



Ordering Information

Part Number	Top Mark	Package		Tape & Reel
SFL900CSG	SFL900CSG	SOP8	Green	
SFL900CSGT	SFL900CSG	SOP8	Green	Yes

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