

High Power Factor & Accuracy Constant Current LED Driver

Description

The GP8634 is a highly-integrated, low startup current, average current mode, one cycle control PFC and fixed switching frequency PWM controller. These functions enable the LED driver to easily meet the accuracy average LED current and high power factor requirements. The GP8634 integrates a power MOSFET with 600V breakdown voltage. The integrated functions also include the LED short protection, open protection, and internal over temperature protection. The COMP pin controls the duty by connected an RC compensation network to ground and forming the closed loop feedback control. The GP8634 improves the performance and reduces the cost of the LED driver.

Features

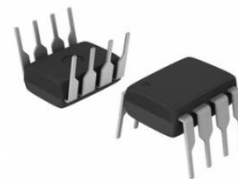
- Integrated 600V MOSFET
- High Power Factor by One Cycle Control
- Accuracy Constant Current
- Low BOM Cost
- Linear Dimming on DIM Pin
- Average Current / Fixed Frequency Control
- Gate Output Voltage Clamp
- LED Open Protection (OVP)
- LED Short Protection (SCP)
- Over Current Protection (OCP)
- Internal OTP Protection

Applications

- LED Off-line Lamps
- Others LED Lighting Applications

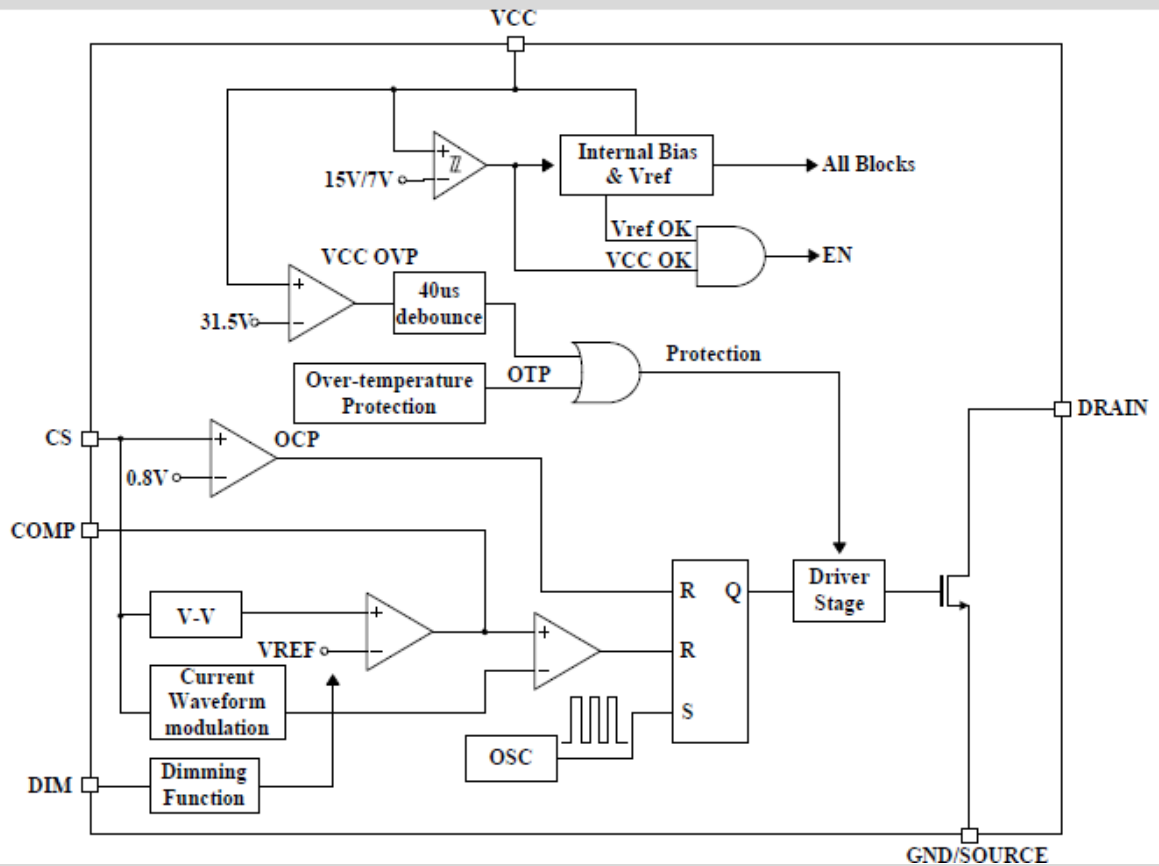
Ordering Information

Device	Marking	Package
GP8634	GP8634	8-DIP



8-DIP

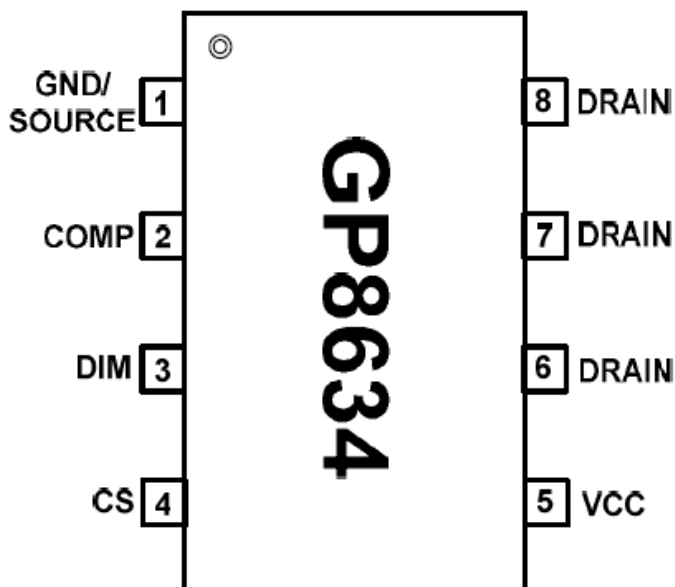
Block Diagram



Absolute Maximum Ratings

Symbol	Parameter	Value	Unit
VCC	Supply Voltage	30	V
V _{IN}	INPUT VOLTAGE (DIM, CS, COMP)	-0.3 ~ 7	v
V _{DRAIN}	DRAIN Voltage	600	V
T _J	Operating Junction Temperature	150	°C
T _A	Operating Ambient Temperature Range	-20 ~ 85	°C
T _{STG}	Storage Temperature Range	-55 ~ 150	°C
Θ _{JA}	Package Thermal Resistance (8DIP)	125	°C/W
PD	Power Dissipation (8DIP)	1	W

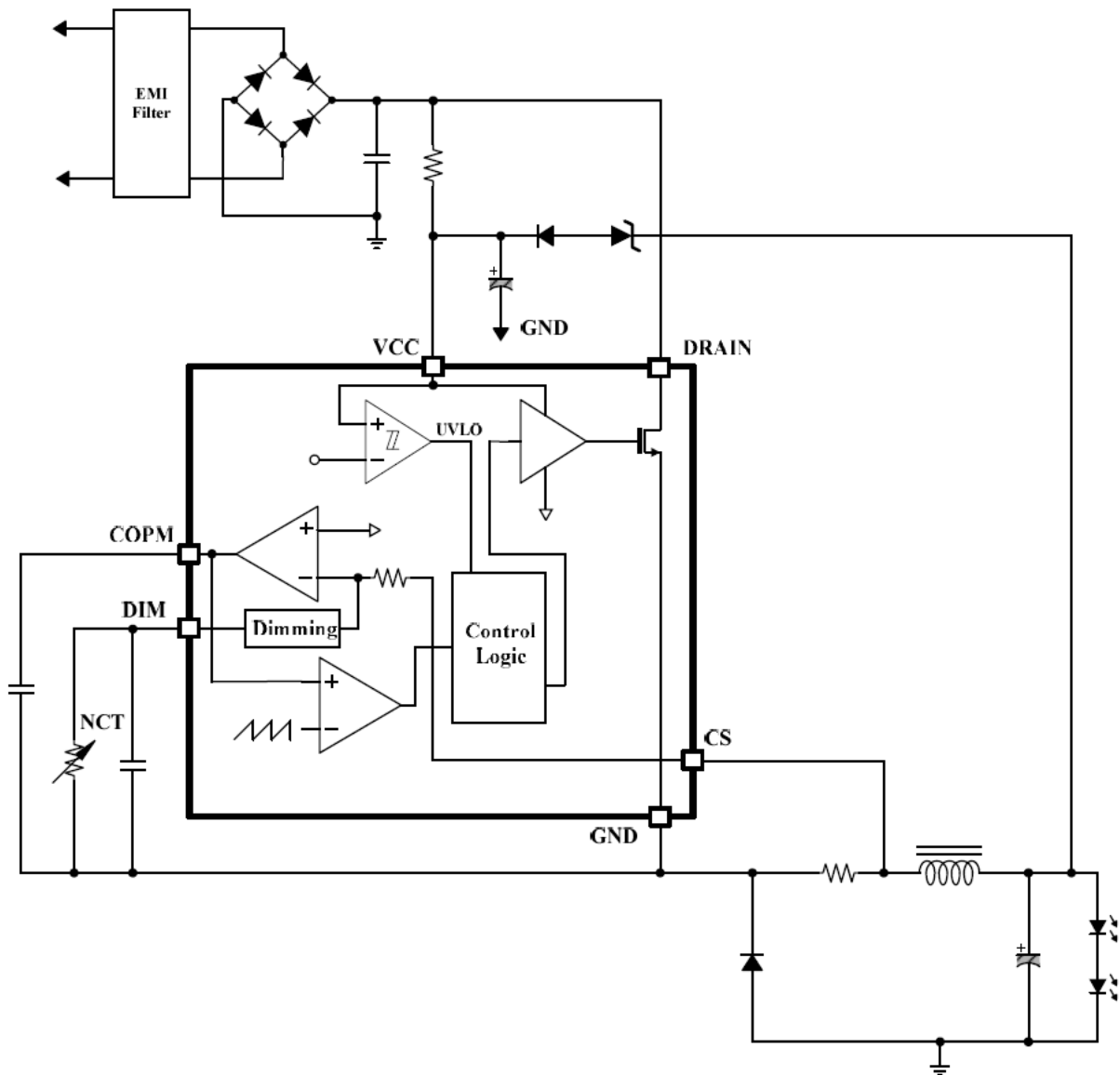
Pin Assignment



Pin Description

No.	Pin Name	Pin Function Description
1	GND/ SOURCE	Ground Pin, Source Pin of the internal MOSFET
2	COMP	Feedback Compensation Network
3	DIM	Dimming Control Pin by Input a DC Voltage
4	CS	Current Sense Pin (current sense resistor : $R_{cs} = V_{ref}/I_{out}$)
5	VCC	Power Supply Pin
6,7,8	Drain	DRAIN Pin of the internal MOSFET

Typical Application Circuit





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