



## DESCRIPTION

The PT6988 is a high precision buck LED Driver IC intended for dimming products with ordinary switch by on/off state in dimming time. The IC has a wide range input range which is 85V~265V and the default dimming state is three Level.

The PT6988 integrates high precision current detection and constant current circuit which can realize high precision LED constant current and excellent line voltage regulation. The PT6988 works in CRM mode, the LED current is constant with inductance and LED output voltage change, good load regulation.

The PT6988 integrates a 500V power MOSFET, uses the source driver architecture, with a low operating current, so the PT6988 doesn't need the auxiliary winding for sensing the output current and supplying the chip. It has a few external components, saves the cost of volume system.

The multi-protection features of PT6988 greatly enhance the system reliability and safety. The PT6988 provides CS resistance short-circuit protection, short LED protection, open LED protection, VIN under voltage protection, temperature intelligent control, etc.

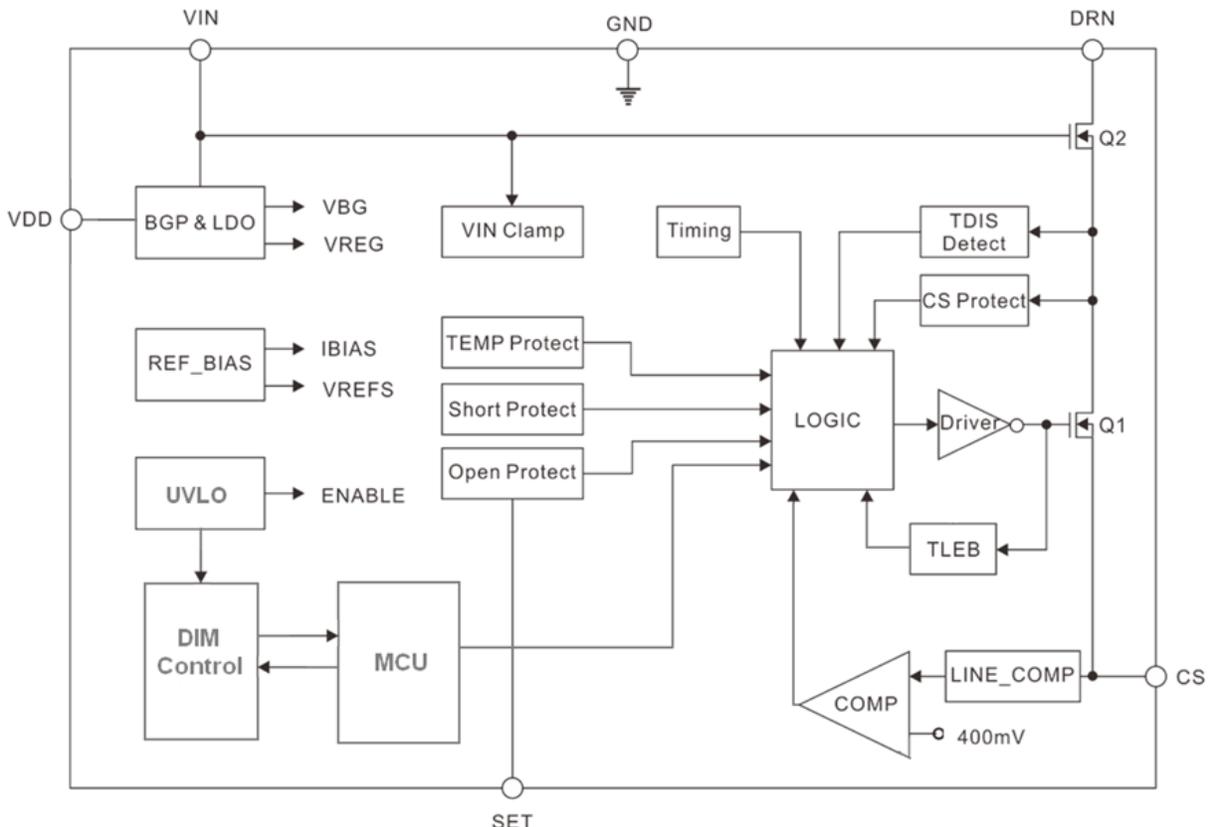
## FEATURES

- Integrates 500V Power MOSFET
- 3-Level ON/OFF Dimming Function
- CRM Mode(rated light)
- No Auxiliary Winding for Sensing and Supplying
- Low Operating Current
- $\pm 5\%$  Output Current Accuracy
- LED Open/Short Circuit Protection
- CS Resistor Short Circuit Protection
- VIN Under Voltage Protection
- Temperature Intelligent Control
- System Auto-Restart Function
- SOP-8 Package

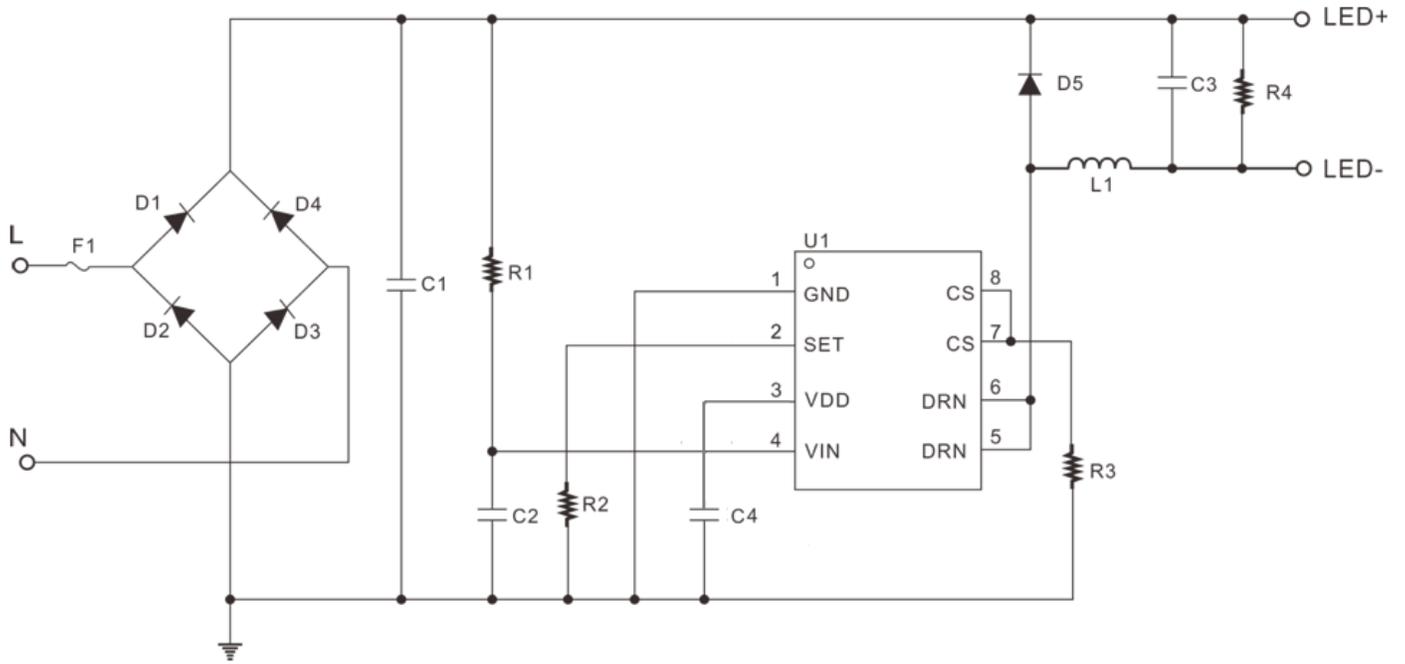
## APPLICATIONS

- LED Bulb lamp, LED PAR lamp
- LED Tube lamp
- Other LED lighting

## BLOCK DIAGRAM



# TYPICAL APPLICATION

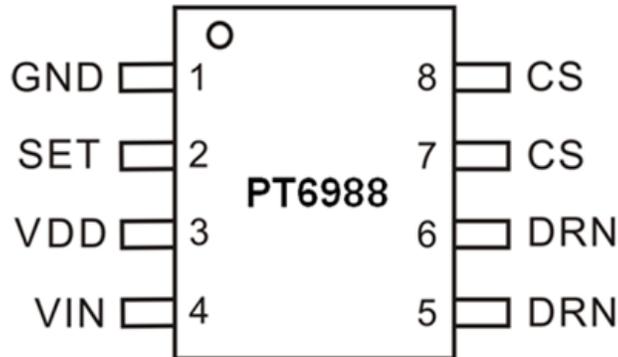


## ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT6988-S	SOP8	PT6988-S
PT6988B-S	SOP8	PT6988B-S

Note: PT6988 Integrates 500V/3A Power MOSFET  
PT6988B Integrates 500V/1A Power MOSFET

## PIN CONFIGURATION



## PIN DESCRIPTION

Pin Name	Description	Pin No.
GND	Ground	1
SET	LED open-circuit voltage protection Settings, by connecting the resistance to the ground	2
VDD	The holding supply pin	3
VIN	Power supply pin	4
DRN	Power MOSFET Drain	5, 6
CS	Current sense pin, sense the inductor current while the switch is on-stage.	7, 8

## **IMPORTANT NOTICE**

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