

DESCRIPTION

PT6909 is a fixed frequency PWM controller IC designed to control high brightness LED driver using a single-stage PFC boost-buck topology. It can achieve a well power factor and a higher dc-bus voltage. This topology allows reducing the filter capacitors and using non-electrolytic capacitors to improve reliability. The PT6909 uses open-loop peak current control technique eliminates a need for loop compensation, limits the input inrush current, and is inherently protected from input under-voltage condition.

PT6909 provides a low frequency PWM dimming input that can accept an external control signal with a duty cycle of 0-100% and a frequency of between 100Hz and a few KHz. The PWM dimming capability enables PT6909 phase control solutions that can work with standard TRIAC.

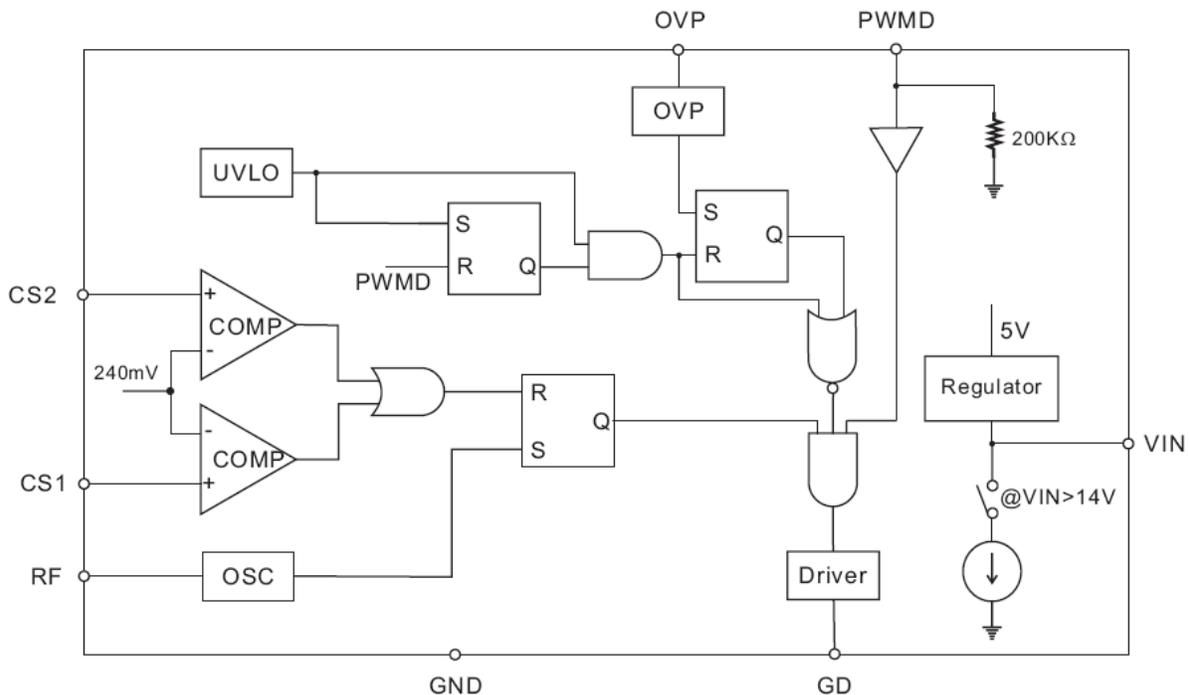
FEATURES

- Simple Power factor Correction Integrated
- Low Start-up Current
- 8V to 12V Input Range
- Constant –Current Driver
- Programmable Fixed Frequency Operation
- Input and Output Current Sensing
- Input Current Limit
- Boost Circuit Over-Voltage Protection(LED Open Protection)
- Input Voltage Limitation
- Low Input Current Harmonic Distortion
- PWM Low-Frequency Dimming and Phase Dimming Compatible

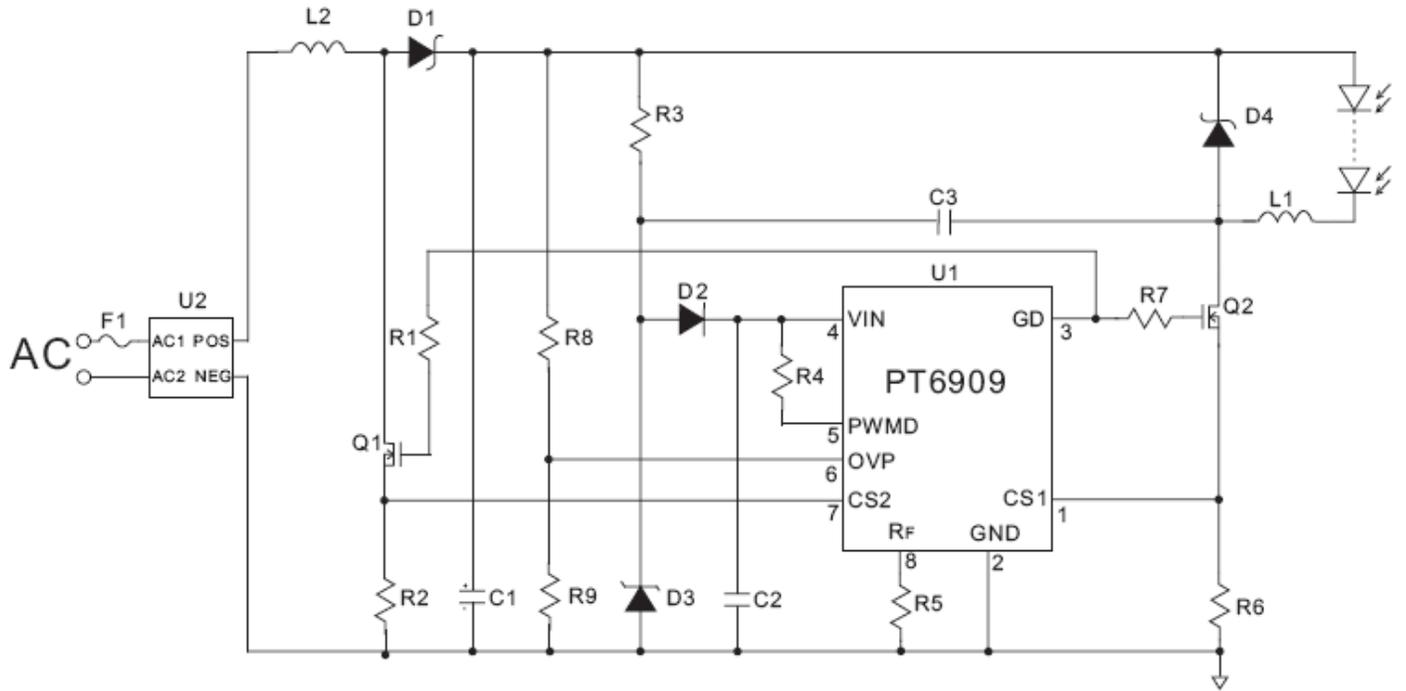
APPLICATIONS

- LED Replacement Tube
- AC/DC LED Driver
- LED Lamp with Phase Dimmable
- Street lamps
- Traffic signals

BLOCK DIAGRAM



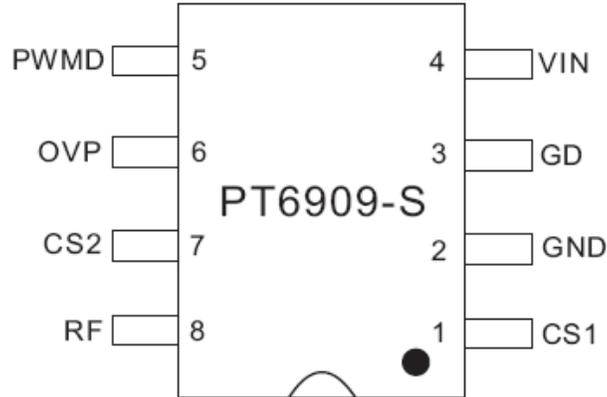
TYPICAL APPLICATION



ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT6909-S	8 Pins, SOP, 150MIL	PT6909-S

PIN CONFIGURATION



PIN DESCRIPTION

Pin Name	Description	Pin No.
CS1	Input or Output Current Sense	1
GND	Ground	2
GD	Drives the Gate of External MOSFET	3
VIN	Input Voltage 8V-12V DC	4
PWMD	Low Frequency PWM Dimming pin, also Enable pin	5
OVP	Over Voltage Detection	6
CS2	Input or Output Current Sense	7
RF	Oscillator Frequency Setting	8

IMPORTANT NOTICE

Princeton Technology Corporation (PTC) reserves the right to make corrections, modifications, enhancements, improvements, and other changes to its products and to discontinue any product without notice at any time.

PTC cannot assume responsibility for use of any circuitry other than circuitry entirely embodied in a PTC product. No circuit patent licenses are implied.

Princeton Technology Corp.
2F, 233-1, Baociao Road,
Sindian, Taipei 23145, Taiwan
Tel: 886-2-66296288
Fax: 886-2-29174598
<http://www.princeton.com.tw>