

### Description

BP2306XJ is a PWM/Analog dimmable high precision non-isolated buck APFC LED driver, specially designed for universal mains with constant current control. Suitable for 90Vac-265Vac full range input voltage.

BP2306XJ adopts high voltage start up circuit, internal the COMP capacitor to simplify the external BOM. And it utilizes patented current detection, with few external components, it achieves high precision output current, excellent line regulation and load regulation.

BP2306XJ offers various protection functions, including LED load short protection, VCC under voltage protection, and over temperature protection, which enhance system reliability.

### Features

- Compatible with PWM and Analog Dimming
- PWM Dimming Range 1~100%
- Analog Dimming Range 5~100%
- Active-PFC for High PF and Low THD
- Ultra low standby power consumption
- Single winding inductance
- No COMP capacitor
- $\pm 3\%$  LED Output Current Accuracy
- Excellent Line and Load Regulation
- VCC Under Voltage Protection
- Cycle by Cycle Current Limit
- LED Short Protection
- Thermal Regulation Function
- SOP-8 Package

### Applications

- LED smart Bulbs
- Other smart LED Lighting

### Typical Application

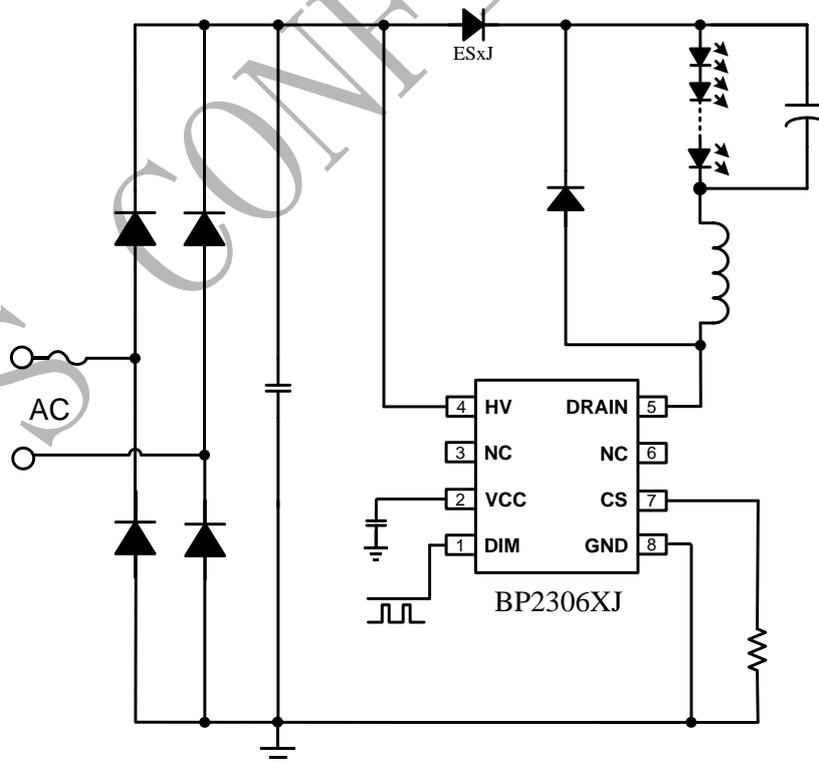


Figure 1 Typical application circuit for BP2306XJ

## Chip Name



## Ordering Information

Part Number	Package	Operating Temperature	Packing Method	Marking
BP2306XJ	SOP8	-40 °C to 105 °C	Tape 4,000 pcs/reel	BP2306 XXXXXXYJ ZZZZWWX

## Pin Configuration and Marking Information

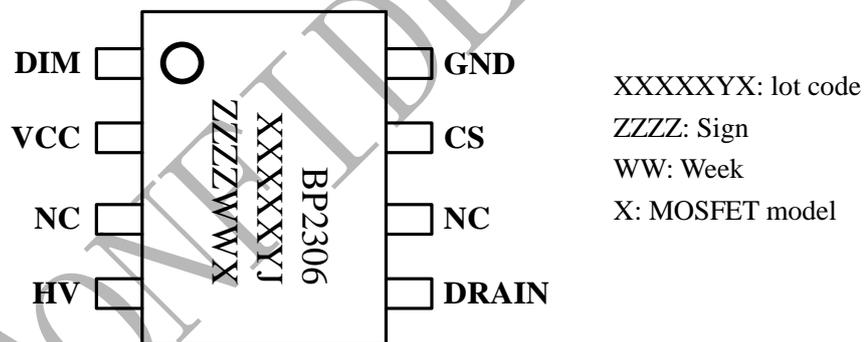


Figure 2. Pin Configuration

## Pin Definition

Pin No.	Name	Description
1	DIM	PWM/Analog Dimming Signal input Interface.
2	VCC	Power Supply Pin. Connect a bypass capacitor from this pin to GND.
3, 6	NC	No Connection.
4	HV	High Voltage startup and power supply.
5	DRAIN	Drain of MOSFET.
7	CS	Current Sense Pin. Connect a resistor to GND to sense the inductor current.
8	GND	Ground.