晶丰明源半导体

BP3136D

High Precision PSR Constant Current LED Driver

Description

BP3136D is a high precision primary-side feedback and regulation controller for LED lighting, it operates in constant current control mode and is designed to work in inductor current discontinuous conduction mode and especially suitable for flyback convertor under universal input. The output power of system is recommended to less than 18W.

BP3136D integrates 650V power MOSFET. Since adopting primary sense and feedback control technology, the secondary sense and feedback circuit is eliminated. The loop compensation components are also removed while maintaining stability overall operating conditions. It uses patent pending source driver architecture and demagnetization sensing technology, the operating current is very low, and it doesn't need the auxiliary winding for sensing the output current and supplying the chip. The low component counts and small system size are realized.

Since using the proprietary high accurate current sense method, the BP3136D realizes ±5% accuracy of LED

The BP3136D offers rich protection functions including LED open/short circuit protection, CS resistor short circuit protection, thermal regulation, V_{CC} under voltage protection.

Features

- Built-in 650V Power MOSFET
- Constant current control without secondary sense and feedback circuit.
- No Auxiliary winding for sensing and supplying
- Ultra low operating current to improve efficiency
- Universal input voltage
- ±5% LED current accuracy
- LED short and open circuit protection
- CS resistor short circuit protection
- VCC under-voltage protection
- Thermal regulation
- Available in DIP-8 package

Applications

- LED Panel Light
- LED Ceiling Light
- LED Bulb
- Other LED lighting

Typical Application

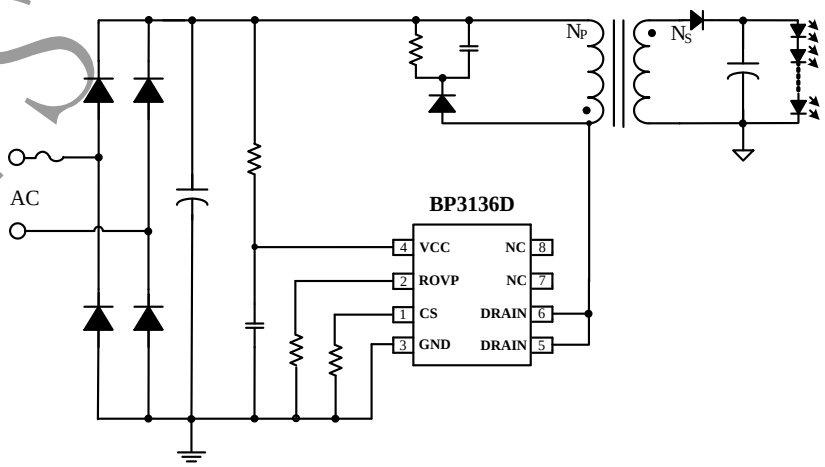
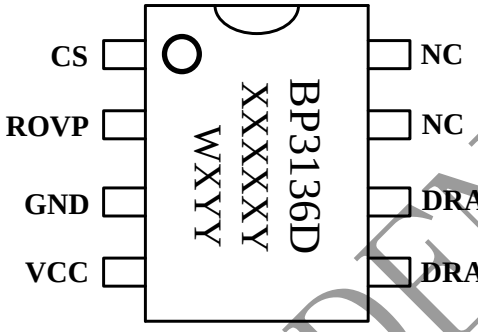


Figure 1. Typical application circuit for BP3136D

Ordering Information

Part Number	Package	Operating Temperature	Package Method	Marking
BP3136D	DIP8	-40 ℃ to 105 ℃	Tube 50 Piece/Tube	BP3136D XXXXXY WXYY

Pin Configuration and Marking Information



XXXXXY: Lot Code
W: Sign
X: Year
YY: Week

Figure 2. Pin configuration

Pin Definition

Pin No.	Name	Description
1	CS	Current sense. This pin connects a current sense resistor to GND to detect the primary current of transformer.
2	ROVP	Connect a ROVP resistor to GND to set the LED open voltage.
3	GND	Ground
4	VCC	Power supply
5, 6	DRAIN	Internal high voltage MOSFET Drain
7, 8	NC	No connection, must be floated