

Description

The BP3166XH 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 BP3166XH integrates a 600V/650V power MOSFET, with gate MOSFET driving technique. It doesn't need the auxiliary winding for VCC supply. It can achieve excellent constant current performance with very few external components, so the system cost and size are minimized.

The BP3166XH offers rich protections to improve the system reliability, including LED short circuit protection, thermal regulation function.

Features

- No VCC capacitor and no starting resistance
- Integrated HV JFET for Power Supply
- No Auxiliary winding for sensing and supplying
- Universal input voltage
- $\pm 5\%$ LED Output Current Accuracy
- LED Short Protection
- LED Open Protection
- Thermal regulation function
- EN function
- Package: SOP7

Applications

- LED Bulb
- LED Candle Light
- Other LED Lighting



Typical Application

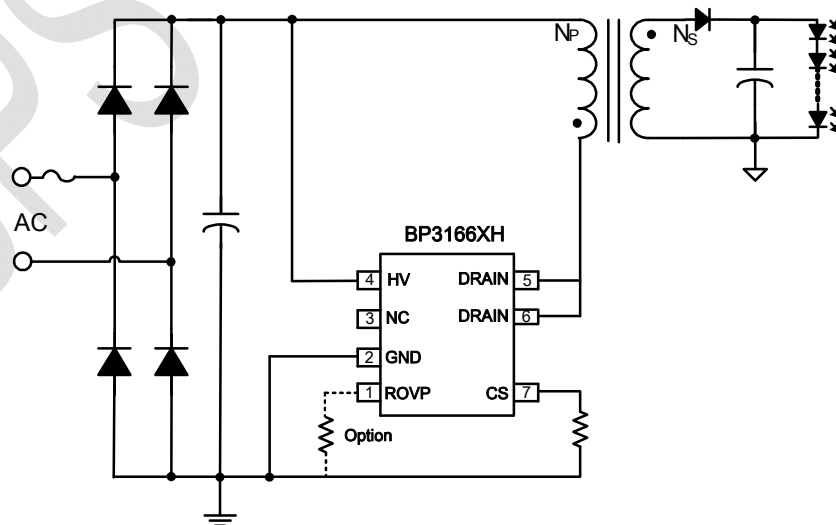
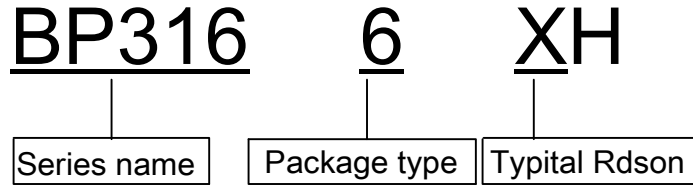


Figure 1. Typical application circuit for BP3166XH

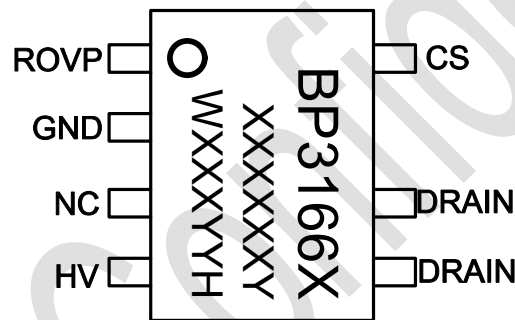
Naming rules



Ordering Information

Part Number	Package	Packing Method	Marking
BP3166XH	SOP7	Tape 4,000 Piece/Reel	BP3166X XXXXXXY WXXXYH

Pin Configuration and Marking Information



XXXXXXY: lot code

WXXX: sign

YY: week

Figure 2. Pin configuration

Pin Definition

Pin Number	Name	Description
1	ROVP	OVP configure by a resistor between this pin and GND pin
2	GND	Ground
3	NC	Not connect
4	HV	Internal high voltage JEFT
5,6	DRAIN	Internal high voltage MOSFET Drain
7	CS	Current Sense Pin. Connect a sense resistor between this pin and GND.

Disclaimer

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