

### Description

BP5151HC is a high current precision Linear LED Driver, integrated with High Voltage regulation switchers and JFET supply, specially designed for AC line LED strings forwarded with high voltage and low current.

In application, it supports a quite small BOM benefit from no ECAP and no Magnetics, compile with EMI and safety standard.

BP5151HC can drive precision constant current by option of an external resistor, and set up the LED strings in group linear compile with THD performance. Typical 40mA LED current is optimized for 220V line voltage.

BP5151HC invite an external resistor to fulfill the line regulation and adjust the output current following input voltage.

### Features

- ◆ High integration, all SMTs in small size.
- ◆ No ECAPs and magnetics
- ◆ Integrated with 500V HV MOS, saved on safety components.
- ◆ Fast startup
- ◆ LED current set by external resistors with  $\pm 5\%$  accuracy.
- ◆ On chip thermal regulation
- ◆ Compensation for line regulation
- ◆ In ESOP8 package
- ◆ Temperature adjustment with  $\pm 3^{\circ}\text{C}$  accuracy

### Application

- ◆ GU10/E27 LED retrofit lamps
- ◆ LED candle
- ◆ Other LED lighting

### Typical Application

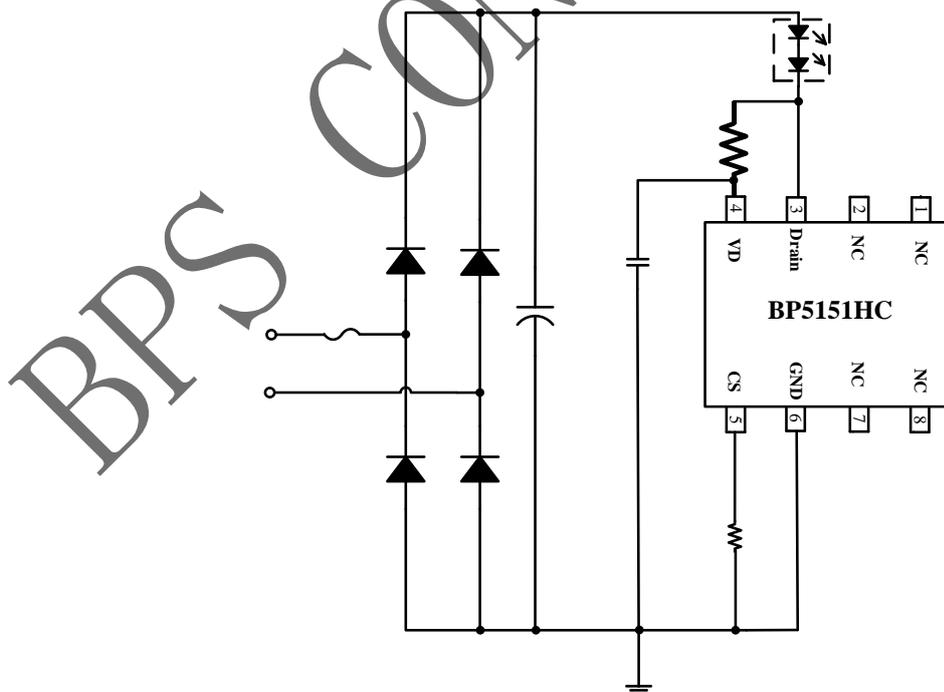
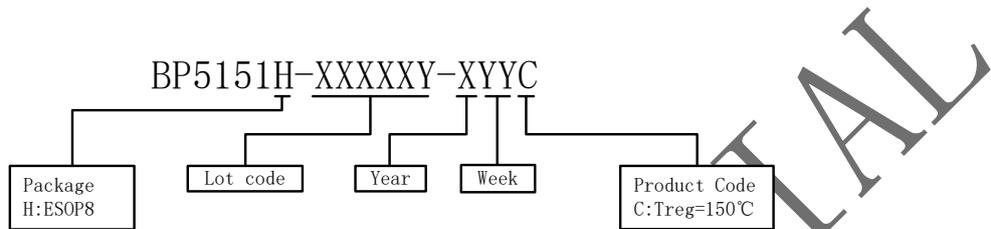


Fig.1 BP5151HC Typical Application

### Order Information

Part Number	Package	Temperature	Temperature adjustment	Packing Method	Mark
BP5151HC	ESOP8	-40 °C to 105 °C	T <sub>REG</sub> : 150 °C	Tape 4000 pcs/reel	BP5151H XXXXXY YYC



### Pin mapping

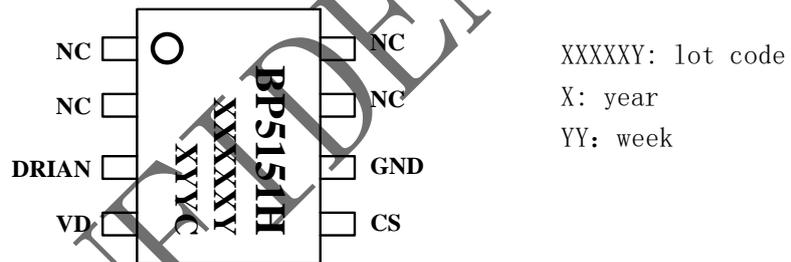


Fig 2 BP5151HC Pin Mapping

### Pin Descriptions

Pin No.	Pin Name	Descriptions
1,2,7,8	NC	Not connect
3	D	Drain for LED string
4	VD	Drain signal input, need connect resistor to Drain Pin
5	CS	Current sense, connect the current sense resistor to GND
6	GND	IC ground