

### Description

BP5131HC 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.

BP5131HC 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.

### 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.

### Application

- ◆ GU10E27 LED retrofit lamps
- ◆ LED candle
- ◆ Other LED lighting

### Typical Application

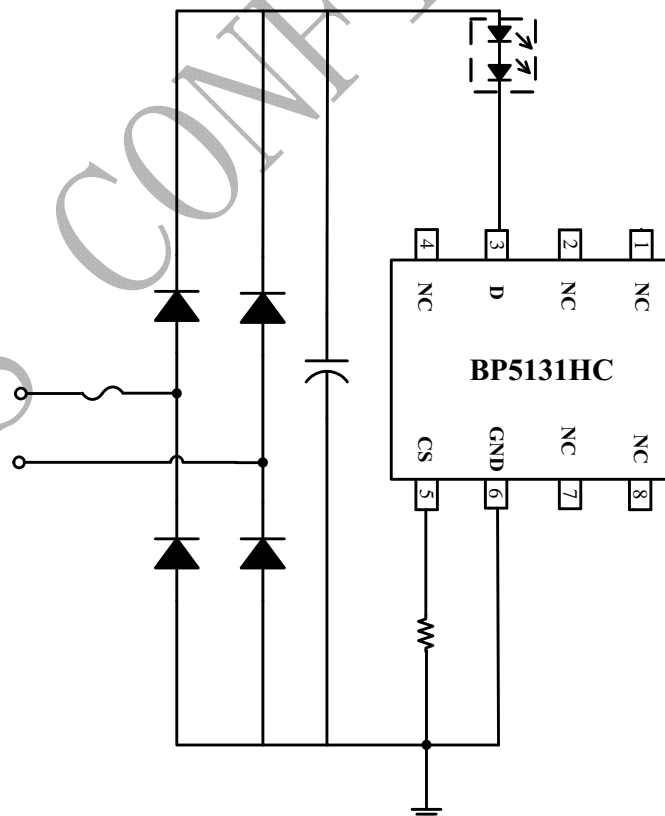
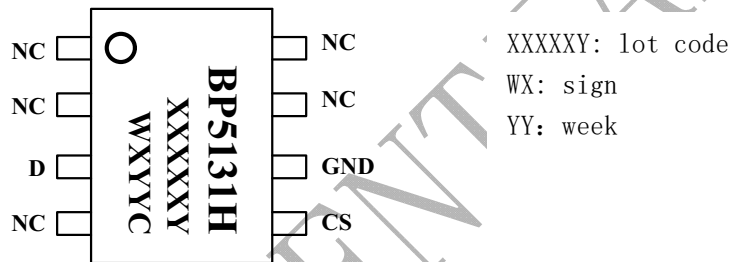


Fig.1 BP5131HC Typical Application

### Order Information

Part Number	Package	Temperature	Packing Method	Mark
<b>BP5131HC</b>	<b>ESOP8</b>	<b>-40 °C to 105 °C</b>	<b>Tape</b> <b>4,000pcs/reel</b>	<b>BP5131H</b> <b>XXXXXY</b> <b>WKYYC</b>

### Pin mapping



**Fig 2 BP5131HC Pin Mapping**

### Pin Descriptions

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

BPS C