

### Description

BP5131D 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.

BP5131D 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 TO252-3 package.

### Application

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

### Typical Application

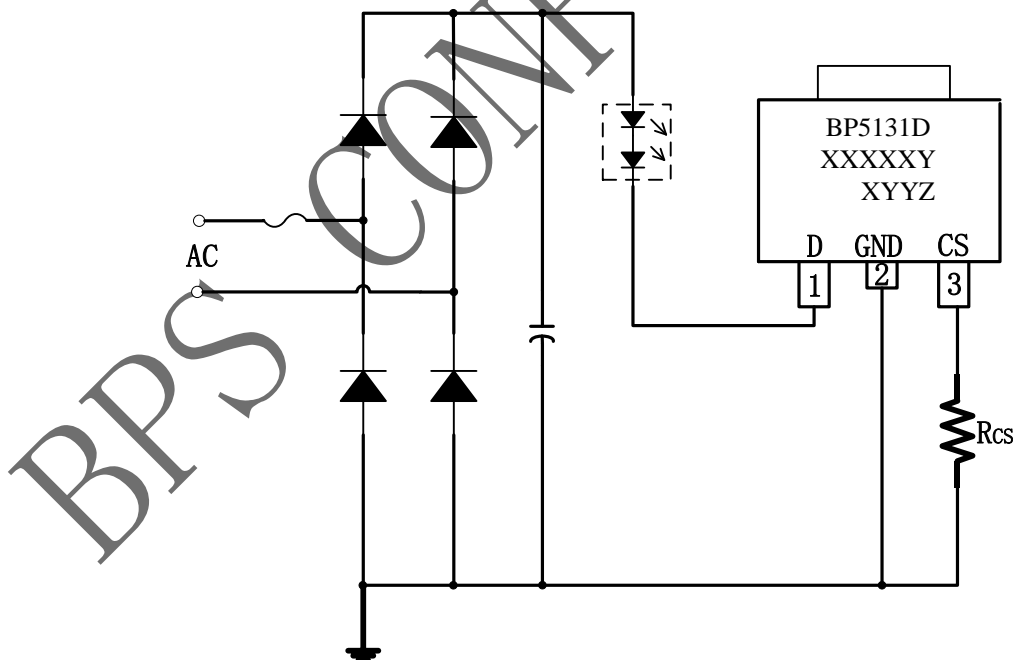
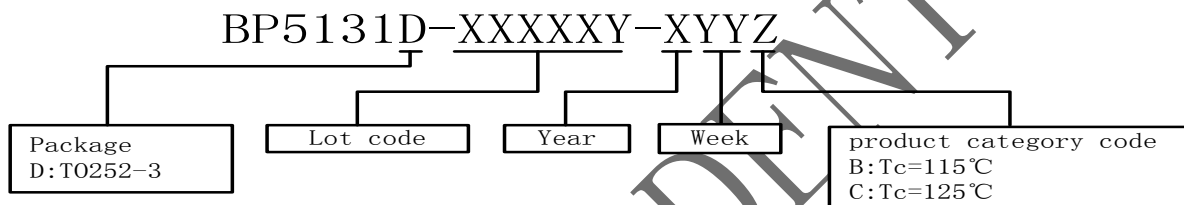


Fig.1 BP5131D Typical Application

### Order Information

Part Number	Package	Temperature	Packing Method	Mark
BP5131DB	T0252-3	-40 °C to 115 °C	Tape: 2,500 pcs/reel 2 reels/box	BP5131D XXXXXY XYYB
BP5131DC	T0252-3	-40 °C to 125 °C	Tape: 2,500 pcs/reel 2 reels/box	BP5131D XXXXXY XYYC



### Pin mapping

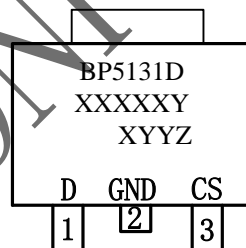


Fig 2 BP5131D Pin Mapping

### Pin Descriptions

Pin No.	Pin Name	Descriptions
1	D	Drain for LED string
2	GND	IC ground
3	CS	Current sense, connect the current sense resistor to GND