

### Description

BP5116DJ 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.

BP5116DJ 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

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

### Typical Application

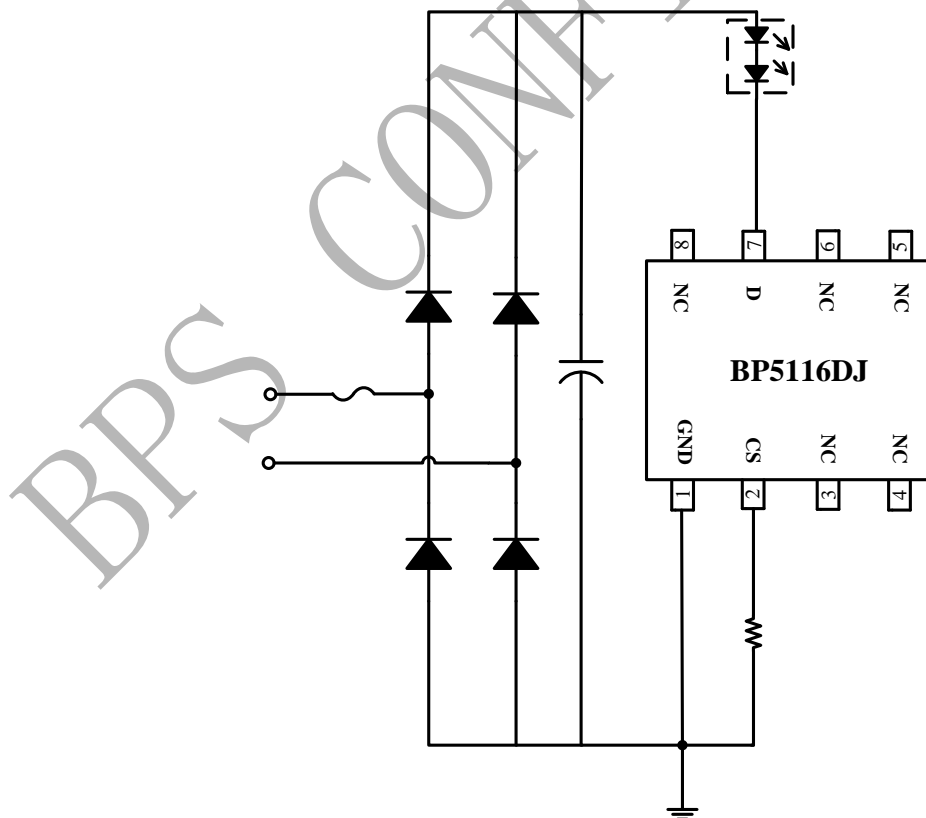


Fig.1 BP5116DJ Typical Application

### Order Information

| Part Number | Package | Temperature      | Packing Method         | Mark                      |
|-------------|---------|------------------|------------------------|---------------------------|
| BP5116DJ    | ESOP8   | -40 °C to 105 °C | Tape<br>4,000 pcs/reel | BP5116<br>XXXXXYJ<br>WXYD |

### Pin mapping

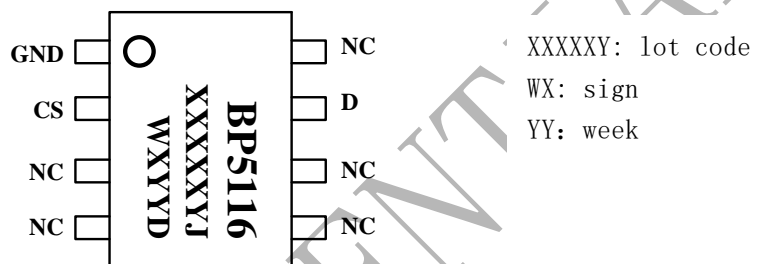


Fig 2 BP5116DJ Pin Mapping

### Pin Descriptions

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