

### Description

BP2865XJ is a high precision Buck constant current LED driver. The device operates in critical conduction mode and is suitable for 85Vac~265Vac universal input offline LED lighting.

The BP2865XJ integrates a 500V power MOSFET, with proprietary MOSFET driving technique. It doesn't need VCC capacitor and startup resistor. It can achieve excellent constant current performance with very few external components, so the system cost and size are minimized.

BP2865XJ operates in critical conduction mode, it can achieve precise output current and excellent line regulation. The driver output current does not change with the inductance and output voltage.

The BP2865XJ offers protections to improve the system reliability, including LED short circuit protection, and thermal regulation function.

### Typical Application

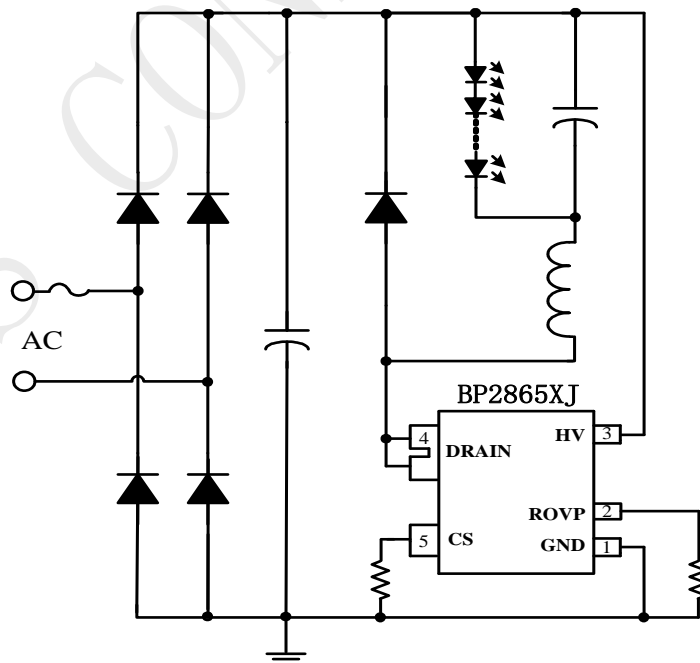


Figure 1. Typical application circuit for BP2865XJ

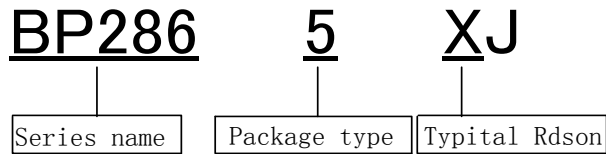
### Features

- No VCC Capacitor and Startup Resistor
- Integrated HV JFET for IC Power Supply
- Internal 500V Power MOSFET
- Critical Conduction Mode Operation
- $\pm 5\%$  LED Output Current Accuracy
- Configurable OVP by Rovp resistor
- LED Short Protection
- Thermal Regulation Function
- Available in SOT33-5B Package

### Applications

- LED Bulb
- LED Tube
- Other LED Lighting

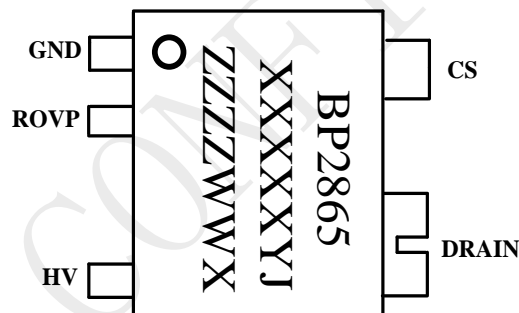
### Naming rules



### Ordering Information

Part Number	Package	Operating Temperature	Packing Method	Marking
BP2865XJ	SOT33-5B	-40 °C to 105 °C	Tape 7, 500Pcs/Reel	BP2865 XXXXXYJ ZZZZWWX

### Pin Configuration and Marking Information



XXXXXY: Lot Code  
ZZZZ: Sign  
WW: Week  
X: S/A/B/C/D/F/G

Figure 2. Pin configuration

### Pin Definition

Pin No.	Name	Description
1	GND	Ground
2	Rovp	OVP configure by a resistor between this pin and GND Pin
3	HV	High voltage power supply Pin
4	DRAIN	Internal HV Power MOSFET Drain.
5	CS	Current Sense Pin. Connect a sense resistor between this pin and GND pin.