晶丰明源半导体

BP9927G

Non-isolated Buck Offline LED Driver

Description

BP9927G 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 BP9927G integrates a 500V power MOSFET. With patent pending MOSFET driving technique, the operating current of the IC is as low as 140uA. It doesn't need the auxiliary winding for VCC supply. It can achieve excellent constant current performance with very few external components, so the system cost and size are minimized.

BP9927G utilizes patent pending current control method. It can achieve precise output current and excellent line regulation. The driver operates in critical conduction mode, the output current does not change with the inductance and output voltage.

The BP9927G offers rich protections to improve the system reliability, including LED open circuit protection, LED short circuit protection, VCC under voltage protection and thermal regulation function.

Features

- Internal 500V Power MOSFET
- Integrated HV JFET for VCC Power Supply
- Critical Conduction Mode Operation
- Low Operating Current
- ±5% LED Output Current Accuracy
- LED Open Protection
- LED Short Protection
- VCC Under Voltage Protection
- Thermal Regulation Function
- Available in DIP8 Package

Applications

- LED Tube
- LED Ceiling Light
- LED Bulb
- Other LED Lighting

Typical Application

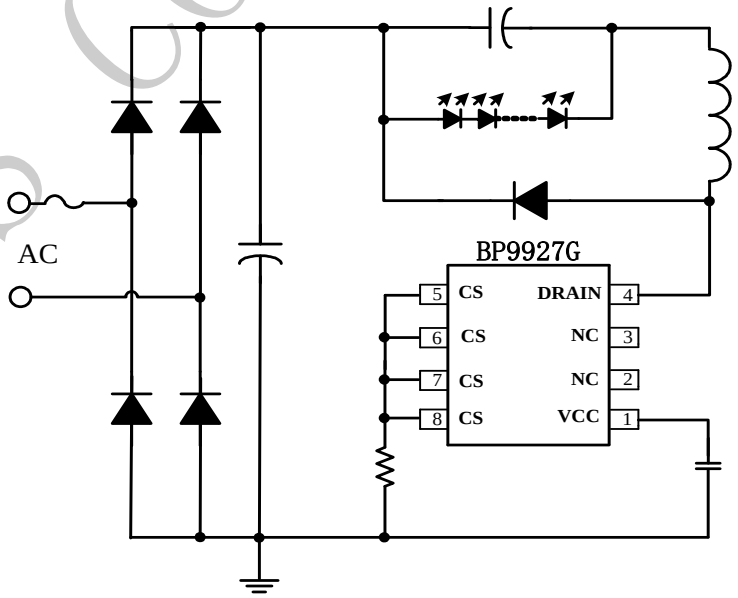

Figure 1. Typical application circuit for BP9927G

Ordering Information

Part Number	Package	Operating Temperature	Packing Method	Marking
BP9927G	DIP8	-40 ℃ to 105 ℃	Tube 50 Pcs/Tube	BP9927G XXXXXY XYY

Pin Configuration and Marking Information

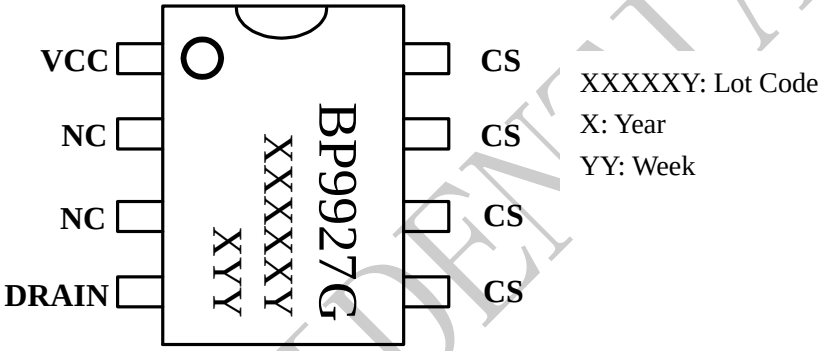

Figure 2. Pin configuration

Pin Definition

Pin No.	Name	Description
1	VCC	Power Supply Pin.
2, 3	NC	No Connection
4	DRAIN	Internal HV Power MOSFET Drain.
5, 6, 7, 8	CS	IC GND Pin, also for Current Sense. Connect a sense resistor between this pin and power GND.