BP85928D
High Integration Off-line Switcher
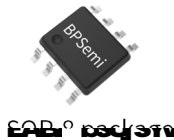
Description

The BP85928D is a high performance, highly integrated power supply switcher IC with low standby consumption. The BP85928D can be configured as buck, buck-boost topologies for universal 85-265VAC inputs.

The BP85928D integrates a 650V power MOSFET, a high-voltage current source for self-biasing, a current sensing circuit, an output feedback circuit, and an advanced controller. External loop compensation components can be eliminated, which reduces cost and size of overall power systems, and improves reliability.

The BP85928D employs multi-mode control algorithm. As a result, the no-load power consumption and the average efficiency have been improved, and the audible noise is reduced.

The BP85928D features comprehensive protections, including short circuit protection (SCP), output over voltage protection (OVP), over load protection (OLP), cycle-by-cycle current limit, and over temperature protection (OTP).

The BP85928D is available in SOP-8 package.

Features

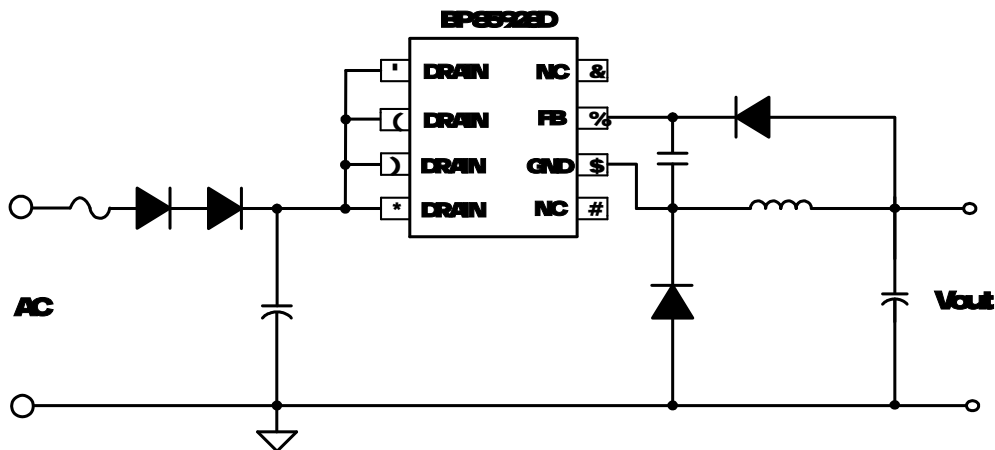- Integrated 650V power MOSFET
- Integrated high-voltage current source for self-biasing
- Integrated output feedback circuit
- Fixed 5V output
- Excellent transient response, low output ripple
- Reduced audible noise at light load
- Adaptive switching frequency, 40kHz maximum
- Frequency modulation for EMI improvement
- Internal soft start
- Comprehensive protections
  - Short circuit protection (SCP)
  - Over voltage protection (OVP)
  - Over load protection (OLP)
  - Cycle-by-cycle current limit
  - Over temperature protection (OTP)

Applications

- Home appliances
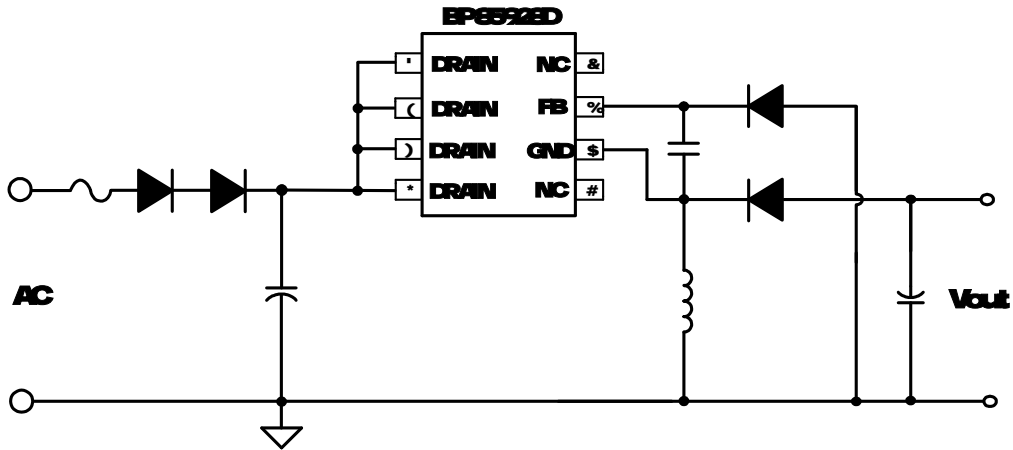- Motor driver standby power
- IoT, smart home, smart LED drivers

SOP-8 package

Typical Application

Figure 1. Typical buck application with the BP85928D

Figure2 Typical buck-boost application with the BP5928D

Ordering Information

Part Number	Package	Packing	Marking
BP5928D	SOP-8	Tape & Reel 4000pcs/Reel	BP5928 XXXXXYY ZZZZVWWD

Pin Configuration and Marking Information

NC	DRAIN
GND	DRAIN
FB	DRAIN
NC	DRAIN

BP5928 Part number

XXXXXYY: Lot code

ZZZZ: Internal code

VWW Week code

D   Package type (D:SOP)
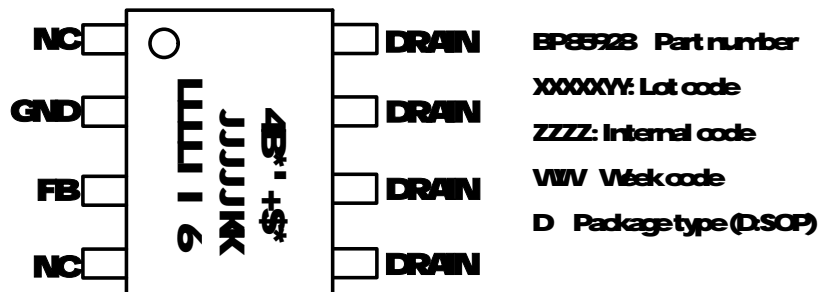
Figure 3 SOP-8pin configuration

Pin Functions

Pin NO.	Pin Name	Description
1 4	NC	Not connected.
2	GND	Ground reference for the IC. Source connection of the internal power MOSFET.
3	FB	Voltage feedback pin.
5 6 7 8	DRAIN	Drain connection of the internal power MOSFET. Input of the high-voltage current source.

Disclaimer

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