

Description

The EP8592ED is a high performance, highly integrated power supply switcher IC with low standby consumption. The EP8592ED can be configured as buck, buck-boost topologies for universal 85-265V/AC inputs.

The EP8592ED 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 EP8592ED 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 EP8592ED 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 EP8592ED is available in SOP-8 package.



Typical Application

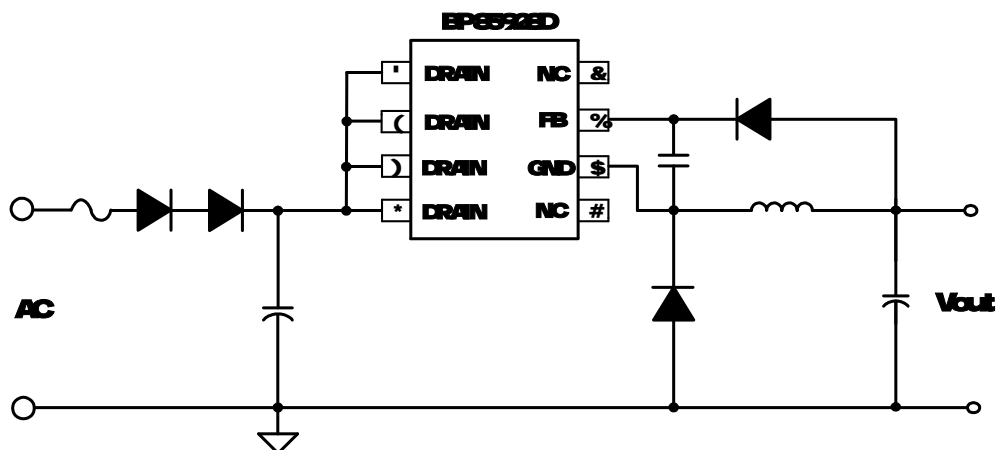


Figure1. Typical buck application with the EP8592ED

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

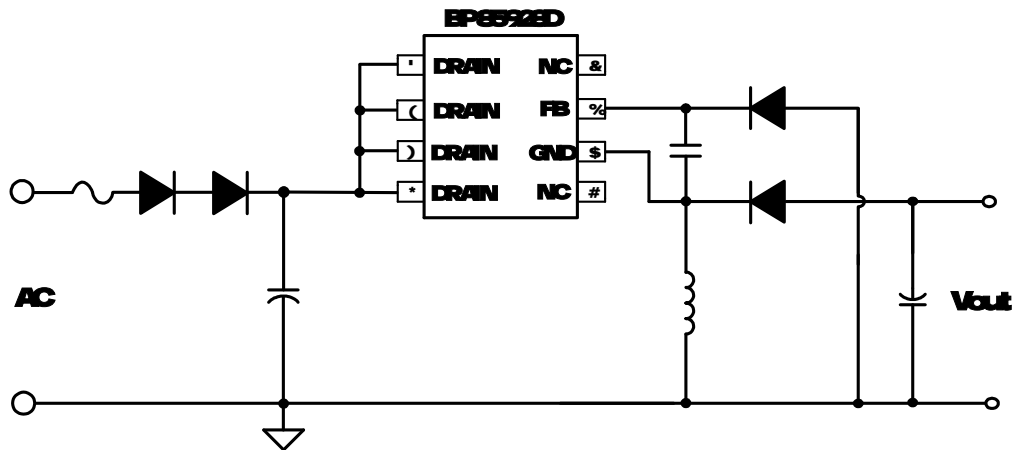


Figure2 Typical buck-boost application with the EP85928D

Ordering Information

Part Number	Package	Packing	Marking
EP85928D	SOP-8	Tape & Reel 4000pcs/Reel	EP85928 X000XYY ZZZZVVV

Pin Configuration and Marking Information

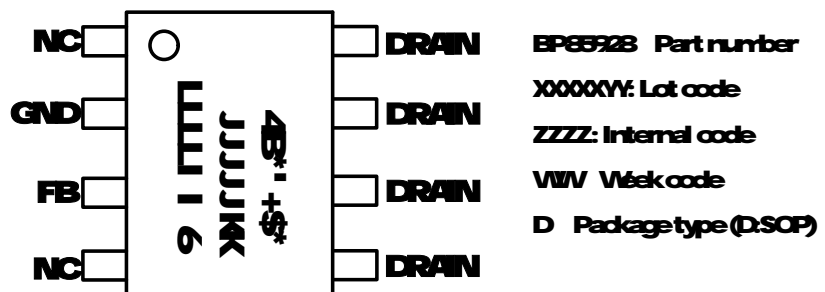


Figure 3 SOP-8 pin configuration

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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