

BP8522D

Ultra-high Integration Off-line Switcher IC

Description

The BP8522D is a high performance, highly integrated power supply switcher IC with low standby consumption. The BP8522D can be configured as buck, buck-boost topologies for universal 85~265V AC inputs.

The BP8522D integrates a 550 V power MOSFET, a high-voltage current source for self-biasing, a current sensing circuit, an output feedback circuit, a freewheeling diode and an advanced controller. External VCC capacitor and loop compensation components can be eliminated, which reduces cost and size of overall power systems, and improves reliability.

The BP8522D employs advanced 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 BP8522D features comprehensive protections, over load protection (OLP), FB open loop protection, cycle-by-cycle current limit, and over temperature protection (OTP).

The BP8522D is available in SOP-7 package.



SOP-7 package

Typical Application

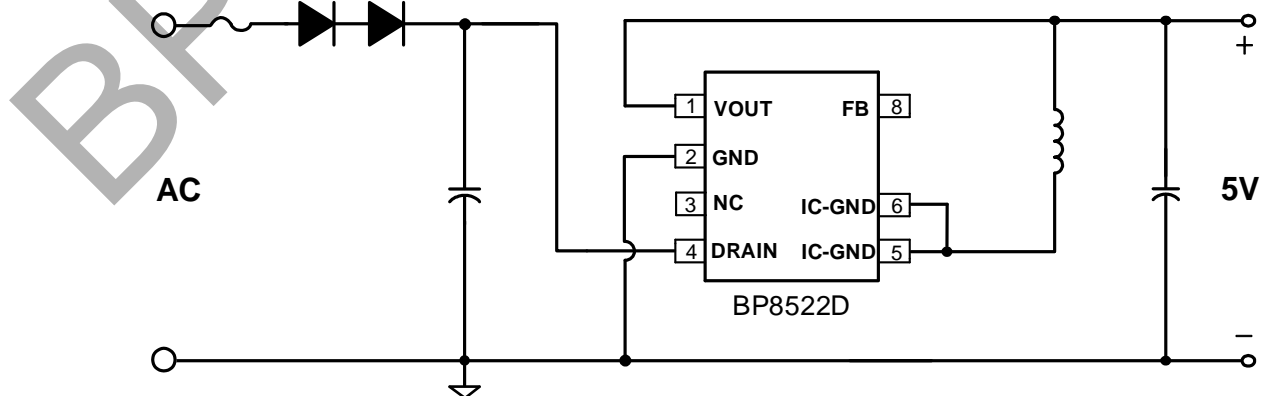


Figure 1. Typical buck application with the BP8522D

Features

- Integrated VCC capacitor, freewheeling diode and feedback diode
- Integrated 550V power MOSFET
- Integrated high-voltage current source for self-biasing
- Internal soft start
- <50mW no load consumption at 230VAC
- Fixed 5V output
- Multi-mode control technology
- Excellent transient response, low output ripple
- Optimized line and load regulation
- Comprehensive protections
 - Over load protection (OLP)
 - Open loop protection
 - Cycle-by-cycle current limit
 - Over temperature protection (OTP)

Applications

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

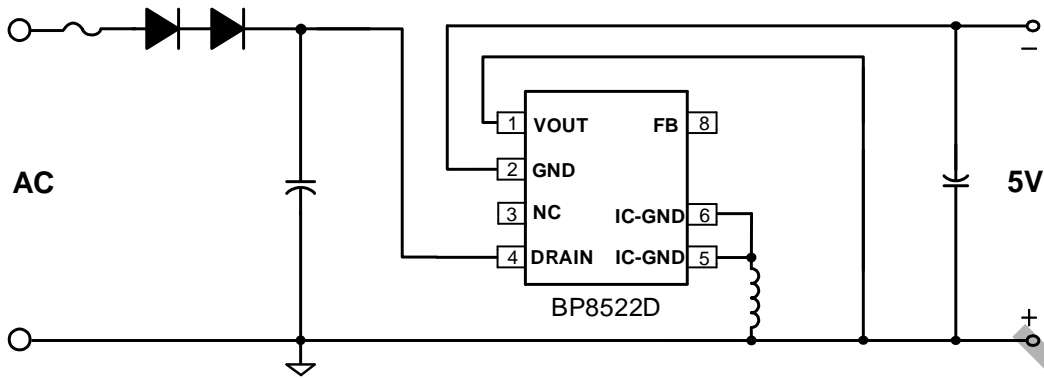


Figure 2. Typical buck-boost application with the BP8522D

Ordering Information

Part Number	Package	Packing	Marking
BP8522D	SOP-7	Tape & Reel 4,000 pcs/Reel	BP8522 XXXXXXYY ZZZZWWD

Pin Configuration and Marking Information

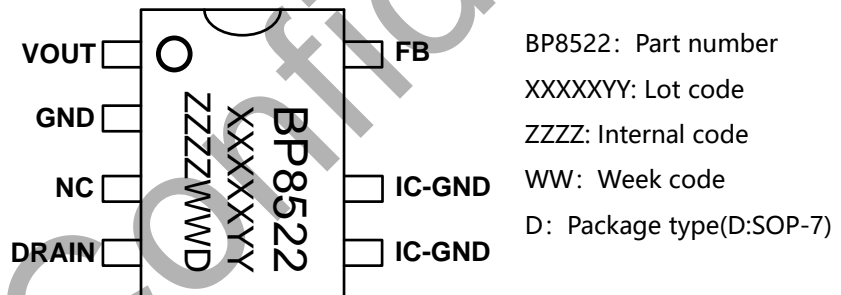


Figure 3. SOP-7 pin configuration

Pin Functions

Pin NO.	Pin Name	Description
1	VOUT	Output voltage pin. Anode of the internal feedback diode.
2	GND	Ground reference for the output voltage. Anode of the internal freewheeling diode.
3	NC	Not connected.
4	DRAIN	Drain connection of the internal power MOSFET. Input of the high-voltage current source.
5, 6	IC-GND	Ground reference for the IC. Source connection of the internal power MOSFET. Cathode of the internal freewheeling diode.
8	FB	Voltage feedback pin. Cathode of the internal feedback diode. No external connection required.

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