BP2525AHL

Low Standby Power Non-isolated CV Converter

Description

The BP2525AHL is an ultra-low standby power non-isolated buck converter for constant output voltage application. The device is suitable for 85Vac~265Vac universal input non-isolated auxiliary power supply.

The BP2525AHL integrates a high voltage power MOSFET. With the output voltage and current control technique, it can get excellent CV regulation. The chip integrates smart high voltage startup and power supply circuit.

The BP2525AHL utilizes PWM & PFM multiple mode control, and powering VCC by output voltage, which contribute to very low standby power, high efficiency, excellent dynamic response and minimized audible noise.

The BP2525AHL is available in SOT33-5A package.

Features

- Standby power <20mW at 120Vac and 230Vac
- Fixed 3.3V and 5V output voltage
- Support direct 3.3V output without LDO
- Minimized audible noise
- Internal High Voltage Power MOSFET
- Integrated HV startup
- Excellent dynamic response for smaller output voltage ripple
- ±5% output CV accuracy
- Integrated soft startup function
- SOT33-5A package

Protection Function

- Over load protection
- Output short protection
- Over temperature protection
- Cycle by cycle Current limitation

Applications

- Standby power supply for smart lighting
- Other auxiliary power applications

Typical Application

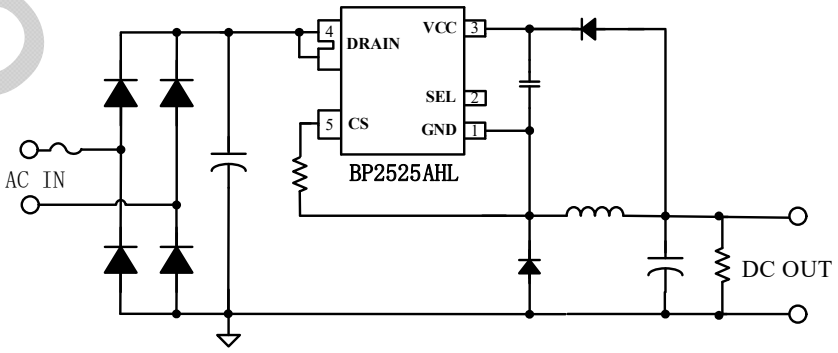
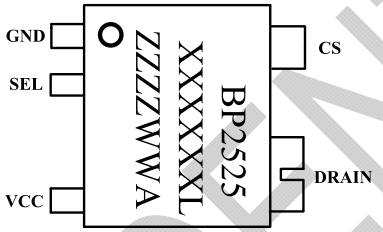


Figure 1. Typical application circuit for BP2525AHL

Ordering Information

Part Number	Package	Operating Temperature	Package Method	Marking
BP2525AHL	SOT33-5A	-40 °C to 105 °C	Tape 7,500pcs/reel	BP2525 XXXXXXL ZZZZWWA

Pin Configuration and Marking Information



XXXXXY: lot code
ZZZZ: Sign
WW: Week
X: MOSFET code

Figure 2. Pin configuration

Pin Definition

Pin No.	Name	Description
1	GND	Ground
2	SEL	Output voltage selection pin. To VCC: Vout= 3.3V; To GND Vout= 5V
3	VCC	Power supply pin
4	DRAIN	Drain of the integrated HV MOSFET
5	CS	Current Sense Pin. Connect a resistor to GND to sense the MOS current.

Disclaimer

The information provided in this datasheet is believed to be accurate and reliable. However, Bright Power Semiconductor (BPS) reserves the right to make changes at any time without prior notice.

No license, to any intellectual property right owned by BPS or any other third party, is granted under this document. BPS provides information in this datasheet "AS IS" and with all faults, and makes no warranty, express or implied, including but not limited to, the accuracy of the information provided in this datasheet, merchantability, fitness of a specific purpose, or non-infringement of intellectual property rights of BPS or any other third party. BPS disclaims any and all liabilities arising out of this datasheet or use of this datasheet, including without limitation consequential or incidental damages.