AP8505

Chipown

Non-isolated AC / DC converter with fixed 5V output based on high voltage synchronous rectifier architecture

General Description

AP8505 is based on high-voltage synchronous rectifier architecture, integrated with PFM controller and 650V high-reliability MOSFET，specifically designed for small power non-isolated switching power supply. AP8505 has internal high voltage start-up and self-supply circuit, and complete intelligent protections including Over Current Protection (OCP), Under Voltage Lockout (UVLO) and Over Temperature Protection (OTP). Excellent EMI performance could be achieved with Pulse Frequency Modulation.

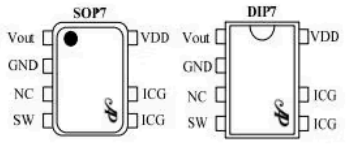
Features

- Internal 650V avalanche-rugged smart power MOSFET
- Internal HV Start-up Circuit
- Advanced HV synchronous rectifier architecture
- Supporting Buck, Buck-Boost topologies
- The output voltage is fixed to 5V
- Semi enclosed steady output current 200mA @230VAC
- Frequency modulation for low EMI
- Excellent constant voltage regulation and High efficiency
- Excellent Protection Coverage:
  - ✧ Over Current Protection（OCP）
  - ✧ Under Voltage Lockout（UVLO）
  - ✧ Over Temperature Protection（OTP）

Applications

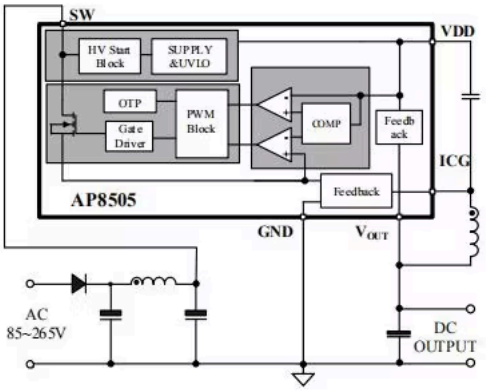
- non-isolated assistant power supply
- Household appliance
- Smart Home

Package/Order Information



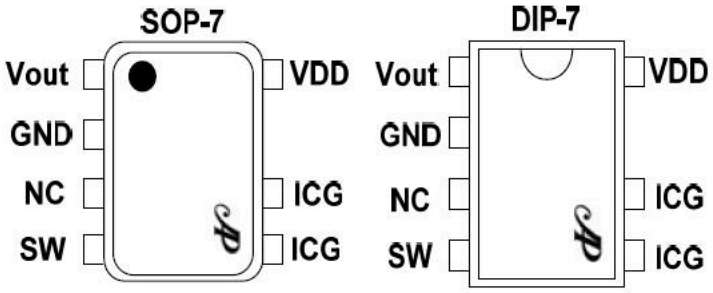
Order Code	Package
AP8505SSC-R1B	SOP7
AP8505NSC-T1B	DIP7

Typical Circuit



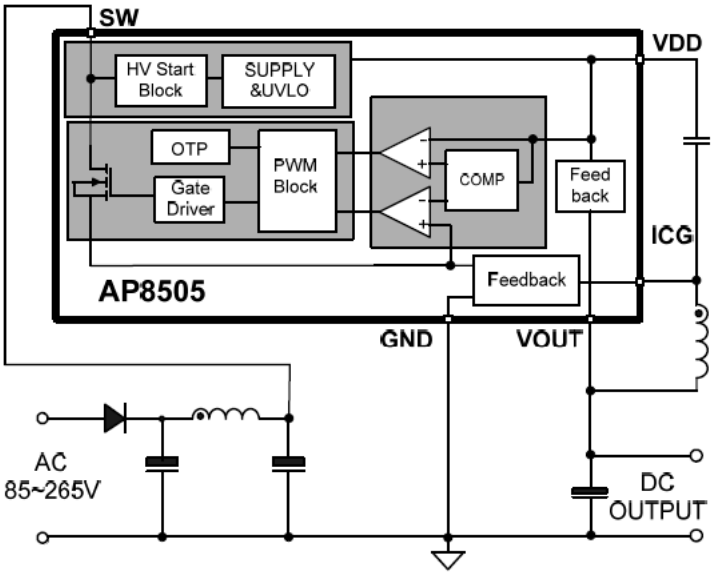
AP8505 rice cooker chip/ap8505 doorbell chip typical application

At present, most of the doorbells on the market use decoding solutions. The decoding solution has the disadvantages of small amount of code, easy duplication of code, large size, manual jumper and difficult production. In order to improve the above disadvantages, Liwei Microelectronics launched AP8505 and AP8507 wireless doorbell chips. This chip solution is suitable for smart home wireless remote control doorbell and other products.

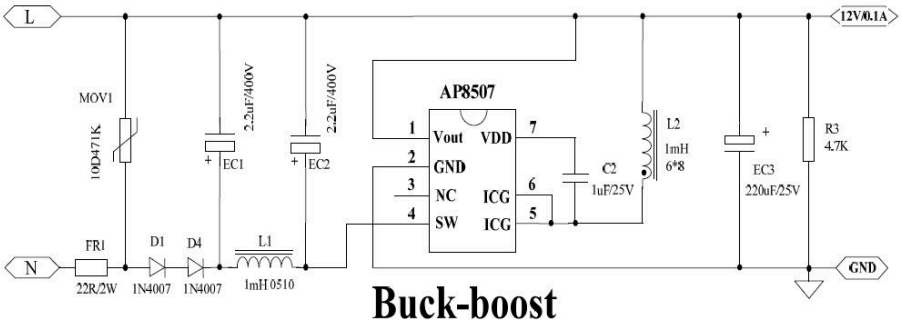


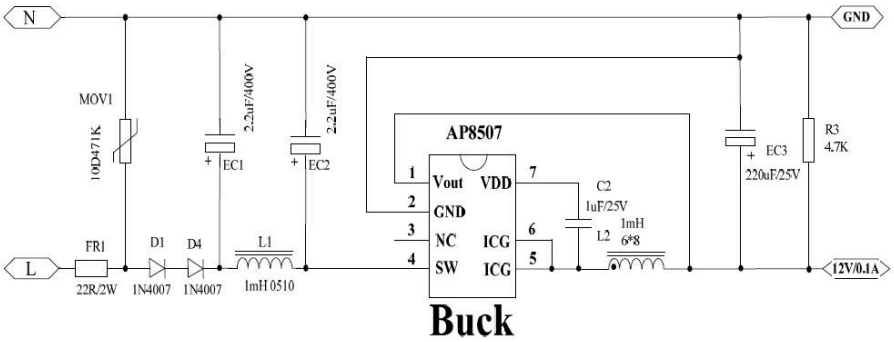
订购代码	封装
AP8505SSC-R1	SOP-7
AP8505NSC-T1	DIP-7

AP8505 is based on high-voltage synchronous rectification architecture, integrated PFM controller and 500V high-reliability MOSFET, and is used for low-power non-isolated switching power supply with extremely simple peripheral components. AP8505 has built-in 500V high-voltage startup to achieve system fast startup and ultra-low standby function. 5V non-isolated wireless doorbell chip AP8505 provides complete intelligent protection functions, including over-current protection, under-voltage protection, and over-temperature protection. In addition, AP8505 has excellent EMI characteristics.



AP8507 is a low-power, high-performance, stand-alone wireless video doorbell IC, suitable for various wireless video doorbell applications suitable for Buck and Buck-Boost architectures. AP8507 wireless doorbell IC is based on a high-voltage synchronous rectification architecture, integrated with a PFM controller and a 500V high-reliability MOSFET, which effectively reduces the number of required peripheral components and reduces the application cost. At the same time, the AP8507 doorbell IC has extremely low power consumption and is particularly suitable for applications in low-energy consumption systems.





AP8505/AP8507 wireless doorbell chip is used for low-power non-isolated switching power supply with extremely simple peripheral components. Its main application areas include non-isolated auxiliary power supply, home appliances and smart home.