AC-DC SMPS IC

AP®8022

GREEN POWER OFF LINE SMPS PRIMARY SWITCHER

General Description

The AP8022 consists of an integrated Pulse Width Modulator (PWM) controller and power MOSFET, specifically designed for small power off line SMPS. AP8022 offers complete protection coverage with automatic self-recovery feature including current limiting (OCP), over voltage (OVP), and under voltage lockout (UVLO), over temperature protection (OTP). Burst mode operation helps to reduce the power of the system in standby position. The device consists of the high voltage start-up circuit and the system can start up quickly.

Features

- 85V to 265V wide range AC voltage input
- A 730V MOSFET on the same silicon chip
- Auto start up with high voltage current source
- 9.5V to 37V wide range V_{CC} voltage
- Fixed 55KHz switching frequency
- Automatic skip cycle mode in low load condition.
- Auxiliary under voltage lockout with hysteresis
- Protection Coverage:
  - △ Over Load Protection (OLP)
  - △ Over Temperature Protection (OTP)
  - △ Over Voltage Protection (OVP)

Applications

- Charger
- DVD/VCD power supplies
- Electromagnetic Oven power supplies
- Air Conditioner power supplies
- STB power supplies
- AC/DC LED Driver Application

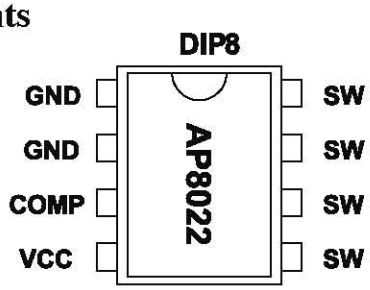
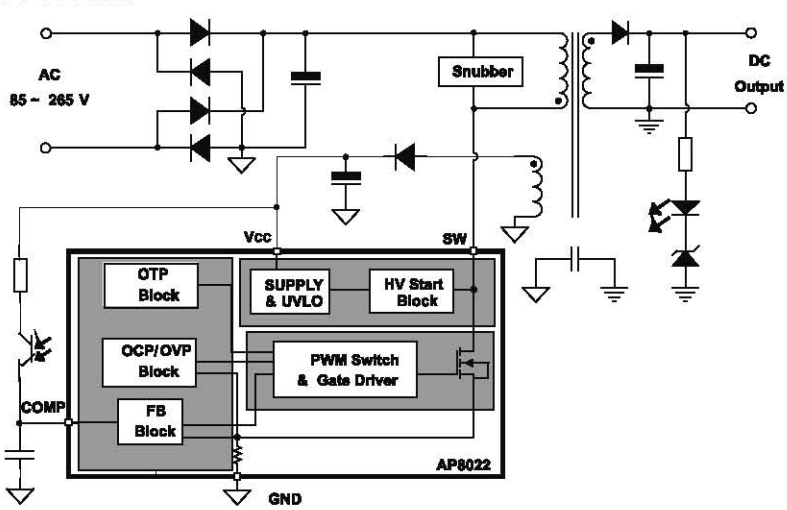
Output Power

Product	AC 85-265V	
	Adapter	Open Frame
AP8022	7W	12W

Note:

1. Typical continuous power in non ventilated enclosed adapter measured at 50 ° C ambient.
2. Maximum practical continuous power in an open frame design at 50 ° C ambient, with adequate heat sinking.

Pin Assignments



Typical Application Circuit