

## DESCRIPTION

RS2543 is a highly integrated current mode PWM power switch. It built in patent High voltage startup, optimized for high performance, exhibit extra low standby power consumption (<30mW) and costs effective offline flyback converter applications.

PWM switching frequency at normal operation is internally fixed. At no load or light load condition, it operates in burst mode to minimize switching loss. Less than 30mW standby power consumption and very high conversion efficiency is thus achieved. Patent high voltage startup is implemented in RS2543, which features with short startup time and extra low standby current.

RS2543 offers rich protections with auto-recovery including Cycle-by-Cycle current limiting (OCP), over load protection (OLP), VDD under voltage lockout (UVLO), and over temperature protection (OTP), VDD over voltage protection (OVP). It also provides the protection with latched shut down including VDD over voltage protection. Excellent EMI performance is achieved with RS2543 proprietary frequency burst technique. The frequency at below 22KHz is minimized to avoid audible noise during operation.

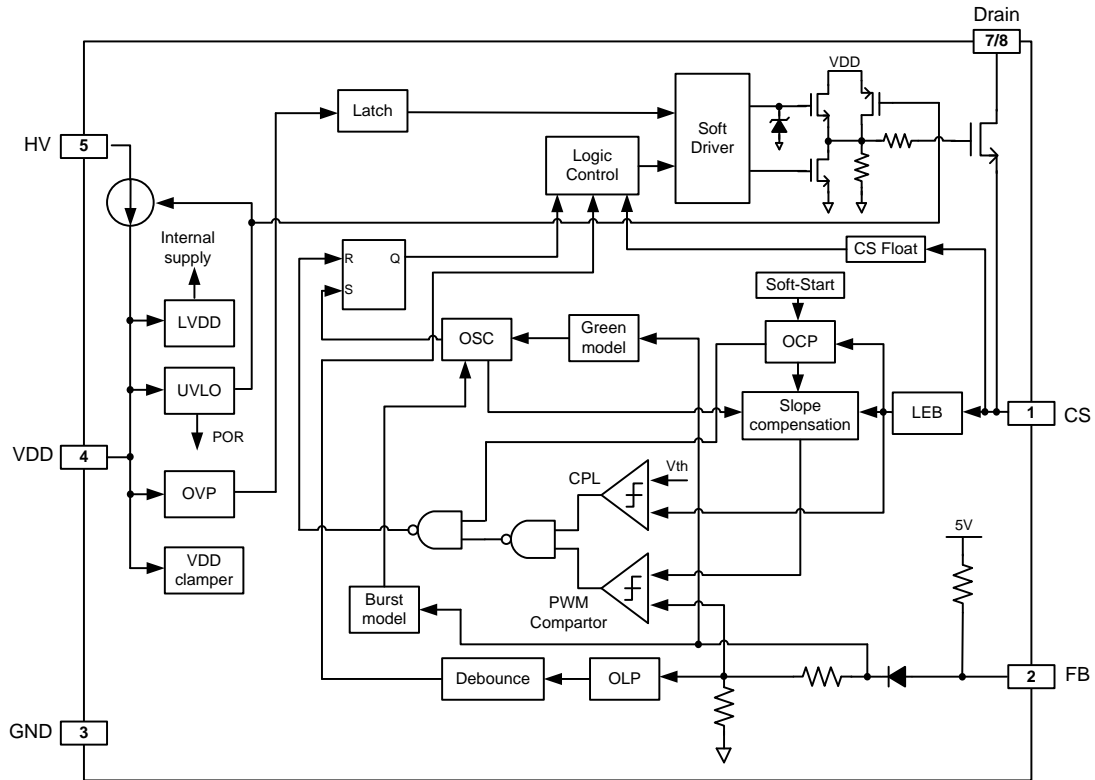
## APPLICATIONS

- Offline AC/DC flyback converter for
- AC/DC adapter
- PDA power supplies
- Digital cameras and camcorder adapter
- VCR, SVR, STB, DVD&DVCD player SMPS
- Set-Top box power
- Auxiliary power supply for PC and server
- Open-frame SMPS

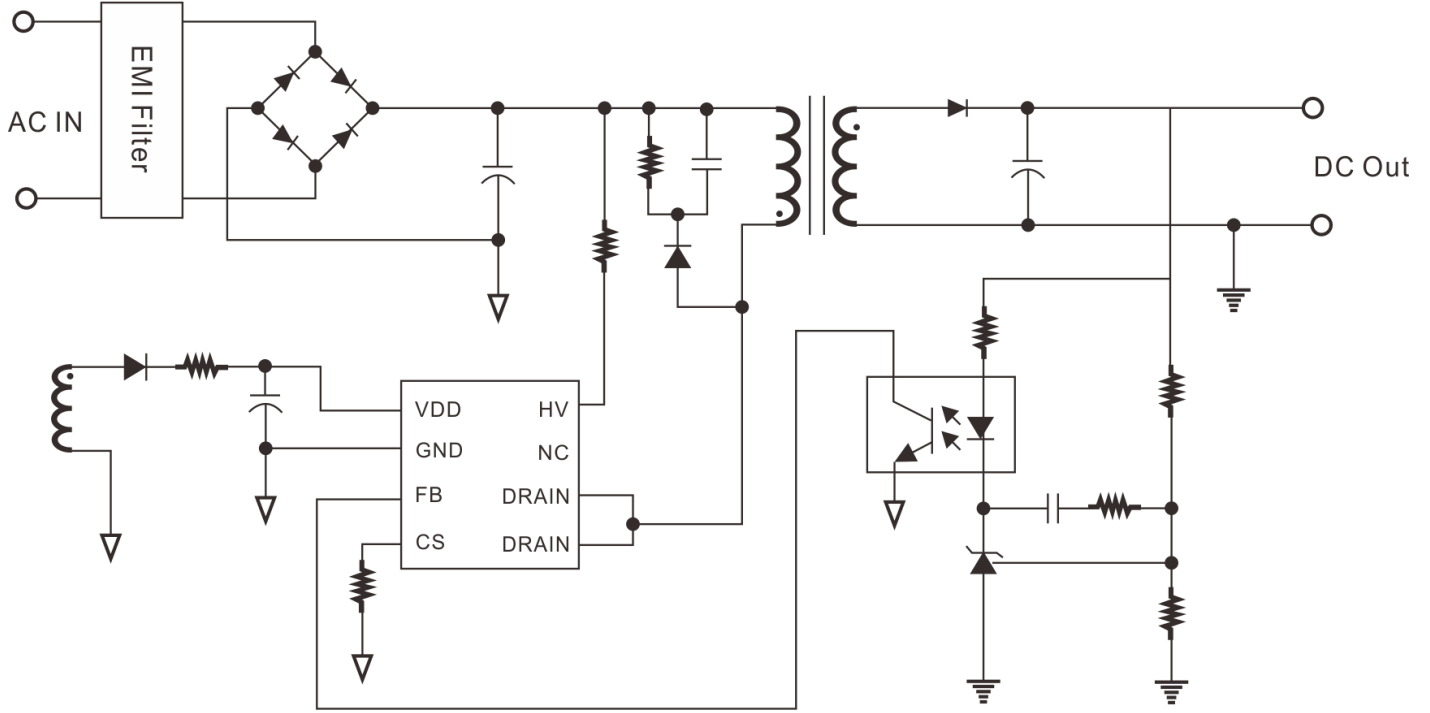
## FEATURES

- Built-in 700V high voltage startup
- Patent high voltage startup technique
- Extra low standby (<30mW)
- Integrated with HV MOSFET
- Power on soft startup
- Frequency spreading to minimize EMI
- Audio noise free operation
- Fixed 65KHz switching frequency
- Comprehensive protection
  - V<sub>DD</sub> under voltage lockout with hysteresis (UVLO)
  - Cycle-by-Cycle over current protection (OCP)
  - Overload protection (OLP) with auto-recovery
  - Over temperature protection (OTP) with auto-recovery
  - V<sub>DD</sub> over voltage protection (OVP) with auto-recovery

# BLOCK DIAGRAM



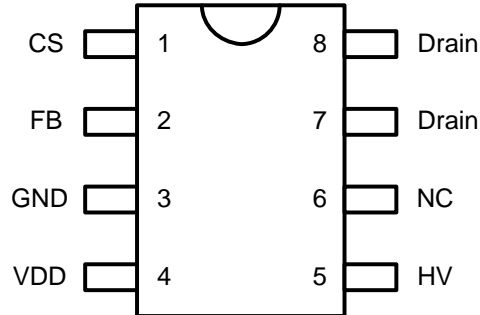
# APPLICATION CIRCUIT



## ORDER INFORMATION

DEVICE	DEVICE CODE
RS2543 Y Z	Y is package & Pin Assignments designator : P : DIP-8 Z is Lead Free designator : P: Commercial Standard, Lead (Pb) Free and Phosphorous (P) Free Package

## PIN CONFIGURATION



## PIN DESCRIPTION

Pin Name	Description	Pin No.
CS	Current sense input	1
FB	Feedback input pin The PWM duty cycle is determined by voltage level into this pin and the current-sense signal at CS pin.	2
GND	Ground	3
VDD	Power supply	4
HV	Connected to the line input or bulk capacitor via resistors for startup.	5
Drain	HV MOSFET drain pin The drain pin is connected to the primary lead of the transformer.	7,8

## **IMPORTANT NOTICE**

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