

Product Overview

NCP1230: PWM Controller, Fixed Frequency, Current Mode

For complete documentation, see the data sheet.

The NCP1230 represents a major leap towards achieving low standby power in medium-to-high power Switched-Mode Power Supplies such as notebook adapters, off-line battery chargers and consumer electronics equipment. Housed in a compact 8-pin package (SO-8 or PDIP-7), the NCP1230 contains all needed control functionality to build a rugged and efficient power supply. The NCP1230 is a current mode controller with internal ramp compensation. Among the unique features offered by the NCP1230 is an event management scheme that can disable the front-end PFC circuit during standby, thus reducing the no load power consumption. The NCP1230 itself goes into cycle skipping at light loads while limiting peak current (to 25% of nominal peak) so that no acoustic noise is generated. The NCP1230 has a high-voltage start-up circuit that eliminates external components and reduces power consumption. The NCP1230 also features an internal latching function that can be used for OVP protection. This latch is triggered by pulling the CS pin above 3.0 V and can only be reset by pulling VCC to ground. True overload protection, internal 2.5 ms soft start, internal leading edge blanking, internal frequency dithering for low EMI are some of the other important features offered by the NCP1230.

Features

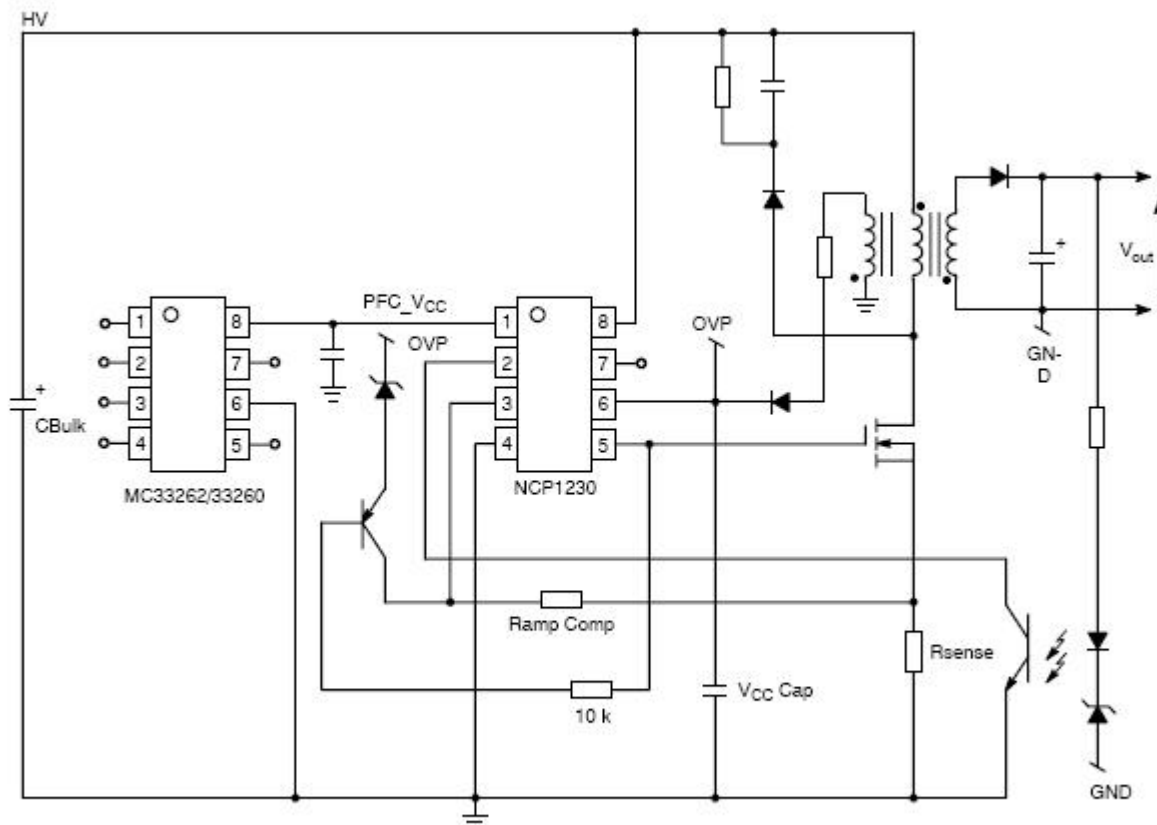
- Current-Mode Operation with Internal Ramp Compensation
- Internal High-Voltage Start-Up Current Source for Loss Less Start-Up
- Extremely Low No-Load Standby Power
- Skip-Cycle Capability at Low Peak Currents
- Direct Connection to PFC Controller for Improved No-Load Standby Power
- Internal 2.5 ms Soft Start
- Internal Leading Edge Blanking
- Latched Primary Overcurrent and Overvoltage Protection
- Short-Circuit Protection Independent of Auxiliary Level
- Internal Frequency Jittering for Improved EMI Signature

For more features, see the data sheet

Applications

- High Power AC/DC Adapters for Notebooks, etc.
- Offline Battery Chargers
- Flat TVs, DVD RW, Home Theatre, Set Top Boxes

Application Diagram



Typical Application Example

For more information please contact your local sales support at www.onsemi.com.

Created on: 6/3/2020