

Product Overview

NCP1244: Controller, Fixed Frequency, Current Mode, for Flyback Converters

For complete documentation, see the data sheet.

The NCP1244 is a new fixed-frequency current-mode controller featuring Dynamic Self-Supply. This function greatly simplifies the design of the auxiliary supply and the V_{CC} capacitor by activating the internal startup current source to supply the controller during start-up, transients, latch, stand-by etc. This device contains a special HV detector which detects the application unplug from the AC input line and triggers the X2 discharge current.

It features a timer-based fault detection that ensures the detection of overload and an adjustable compensation to help keep the maximum power independent of the input voltage.

Due to frequency foldback, the controller exhibits excellent efficiency in light load condition while still achieving very low standby power consumption. Internal frequency jittering, ramp compensation, and a versatile latch input make this controller an excellent candidate for the robust power supply designs.

A dedicated OFF mode allows to reach the extremely low no load input power consumption via sleeping whole device and thus minimize the power consumption of the control circuitry.

This product is IEC60950 compliant. Please see the test report and certification in the Conformance report section below.

Features

- Frequency Foldback and Skip Mode
- Timer-Based Overload Protection with Latched (Option A) or Auto-Recovery (Option B) operation
- High voltage current source with Dynamic Self Supply (DSS)
- Internal Frequency Jittering
- Adjustable overpower protection
- Dedicated latch off input
- Integrated X2 capacitor discharge
- Power saving off mode when used with NCP4353 or NCP4354

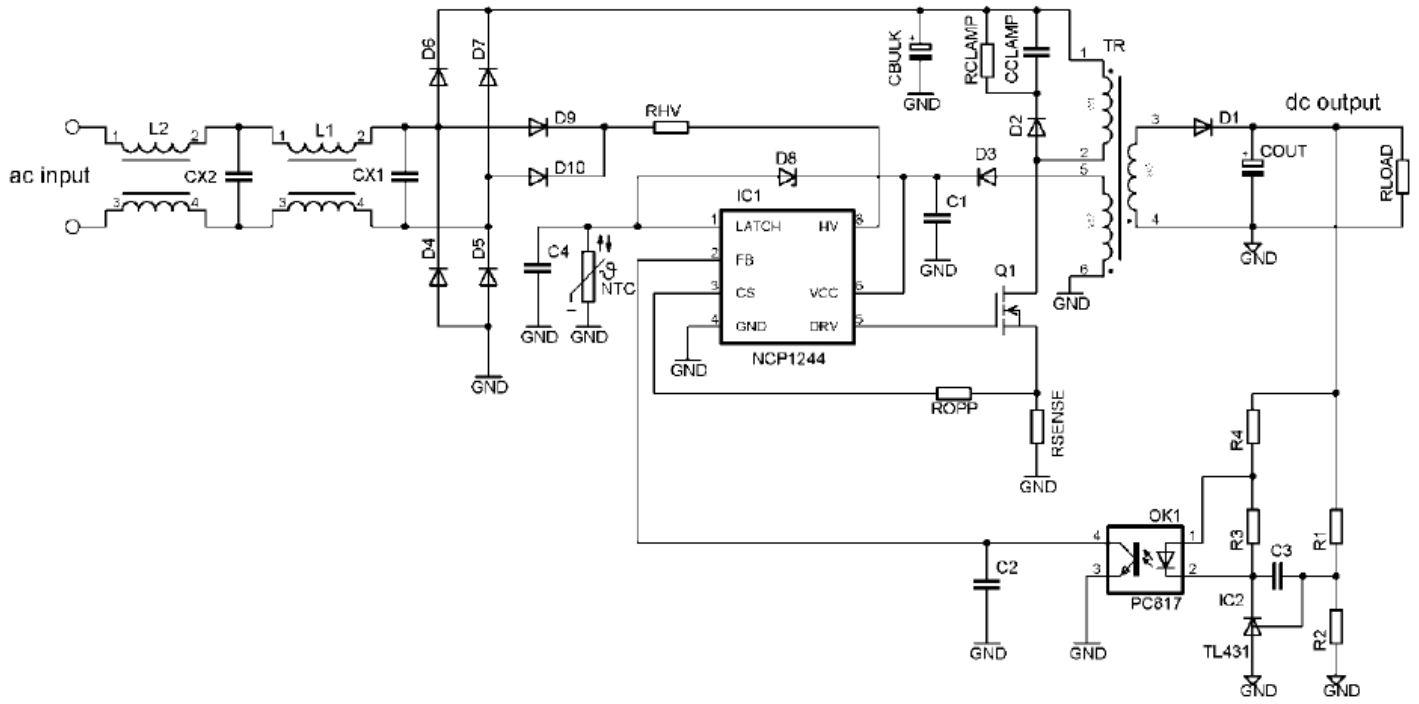
Benefits

- Maximizes efficiency in light load and standby conditions
- Protection against overcurrent or short circuit conditions
- Provides fast, loss-less startup
- Softer EMI signature
- Compensates peak current for changing line input voltage
- Simplifies protection for fault conditions like overtemperature or overvoltage
- Eliminates the X2 capacitor discharge resistors and their associated parasitic consumption
- Allows the power supply to achieve extremely low no load power consumption

Part Electrical Specifications

Product	Compliance	Status	Topology	Control Mode	f _{sw} Typ (kHz)	Stand-by Mode	UVLO (V)	Short Circuit Protection	Latch	Soft Start	V _{CC} Max (V)	Drive Cap. (mA)	Package Type
NCP1244AD065R2G	Pb-free Halide free	Active	Flyback	Current Mode	65	Yes	8.9	Yes	Yes	Yes	28	500 / 800	SOIC-7
NCP1244AD100R2G	Pb-free Halide free	Active	Flyback	Current Mode	100	Yes	8.9	Yes	Yes	Yes	28	500 / 800	SOIC-7

Application Diagram



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

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