

## Product Overview

### NCP1252: PWM Controller, Current Mode, for Forward and Flyback Applications

For complete documentation, see the data sheet.

The NCP1252 controller offers everything needed to build cost effective and reliable ac-dc switching supplies dedicated to ATX power supplies or any forward application. Thanks to the use of an internally fixed timer, NCP1252 detects an output overload without relying on the auxiliary Vcc. A Brown-Out input offers protection against low input voltages and improves the converter safety. Finally, the SOIC-8 package saves PCB space and represents a solution of choice in cost sensitive project.

#### Features

- Peak current mode control
- Adjustable switching frequency
- Latched primary overcurrent protection with 10 ms fixed delay
- Adjustable soft start timer
- Auto recovery brown out detection
- Internal 160 ns leading edge blanking
- Frequency jittering
- Adjustable internal ramp compensation
- +500 mA / -800 mA Source/Sink current driver capability
- Skip cycle operation in light/no load operation

For more features, see the data sheet

#### Benefits

- Help to build rugged power supplies
- High flexibility on the switching frequency
- Allow temporary over load/current and latch permanent fault
- Flexibility on the soft start duration
- Resume the power supply operation after a brown out detection
- Noise immunity improved
- Improve the EMI signature by spreading the noise
- Save external components
- No need of external power MOSFET driver
- Save dummy load

#### Applications

- Power supplies for PC silver boxes
- Ac-dc adapter converter
- Game Adapter
- Flyback and Forward Application

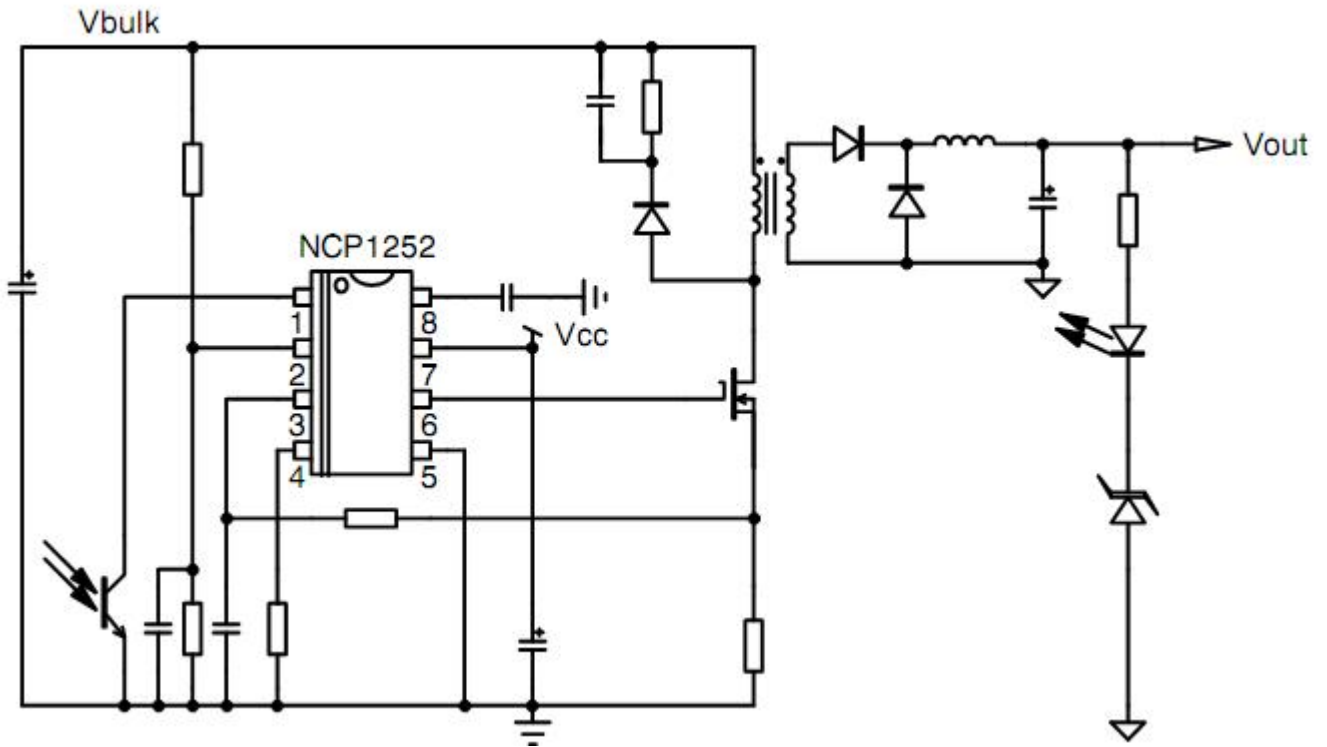
#### End Products

- Desktops

### Part Electrical Specifications

Product	Compliance	Status	Topology	Control Mode	f <sub>sw</sub> Typ (kHz)	Stand-by Mode	UVLO (V)	Short Circuit Protection	Latch	Soft Start	V <sub>CC</sub> Max (V)	Drive Cap. (mA)	Package Type
NCP1252ADR2G	Pb-free Halide free	Active	Flyback Forward	Current Mode	Up to 500	Yes	9 to 10	Yes	Yes	Yes	28	500 / 800	SOIC-8
NCP1252BDR2G	Pb-free Halide free	Active	Flyback Forward	Current Mode	Up to 500	Yes	9 to 10	Yes	Yes	Yes	28	500 / 800	SOIC-8
NCP1252CDR2G	Pb-free Halide free	Active	Forward Flyback	Current Mode	Up to 500	Yes	9 to 10	Yes	Yes	Yes	28	500 / 800	SOIC-8
NCP1252DDR2G	Pb-free Halide free	Active	Forward Flyback	Current Mode	Up to 500	Yes	9 to 10	Yes	Yes	Yes	28	500 / 800	SOIC-8
NCP1252EDR2G	Pb-free Halide free	Active	Flyback Forward	Current Mode	Up to 500	Yes	9 to 10	Yes	Yes	Yes	28	500 / 800	SOIC-8

# Application Diagram



For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

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