

Product Overview

NCP1654: Power Factor Correction Controller for Compact and Robust, Continuous Conduction Mode Pre-Converters

For complete documentation, see the data sheet.

The NCP1654 is a controller for Continuous Conduction Mode (CCM) Power Factor Correction Step up preconverters. It controls the power switch conduction time (PWM) in fixed frequency mode and is dependant on the instantaneous coil current. Housed in a SO-8 package the circuit minimizes the number of external components and drastically simplifies the PFC implementation. It also integrates high safety features that make the NCP1654 a driver for robust and compact PFC stages like an effective input power runaway clamping circuit.

Features

- Very Few External Components
- Programmable Overcurrent Protection
- BrownOut Detection
- Overvoltage Protection
- Soft Start
- Continuous Conduction Mode
- Average Current-Mode or Peak Current-Mode Operation
- Programmable Overpower Limitation
- Undervoltage Detection for Open Loop Detection (shutdown)
- Inrush Currents Detection

For more features, see the data sheet

Benefits

- helps in realizing a cost-effective solution
- increases safety
- protection against low-mains and reduced stress on components
- rugged design
- reduces transient stress

Applications

- Power Factor Correction Stage

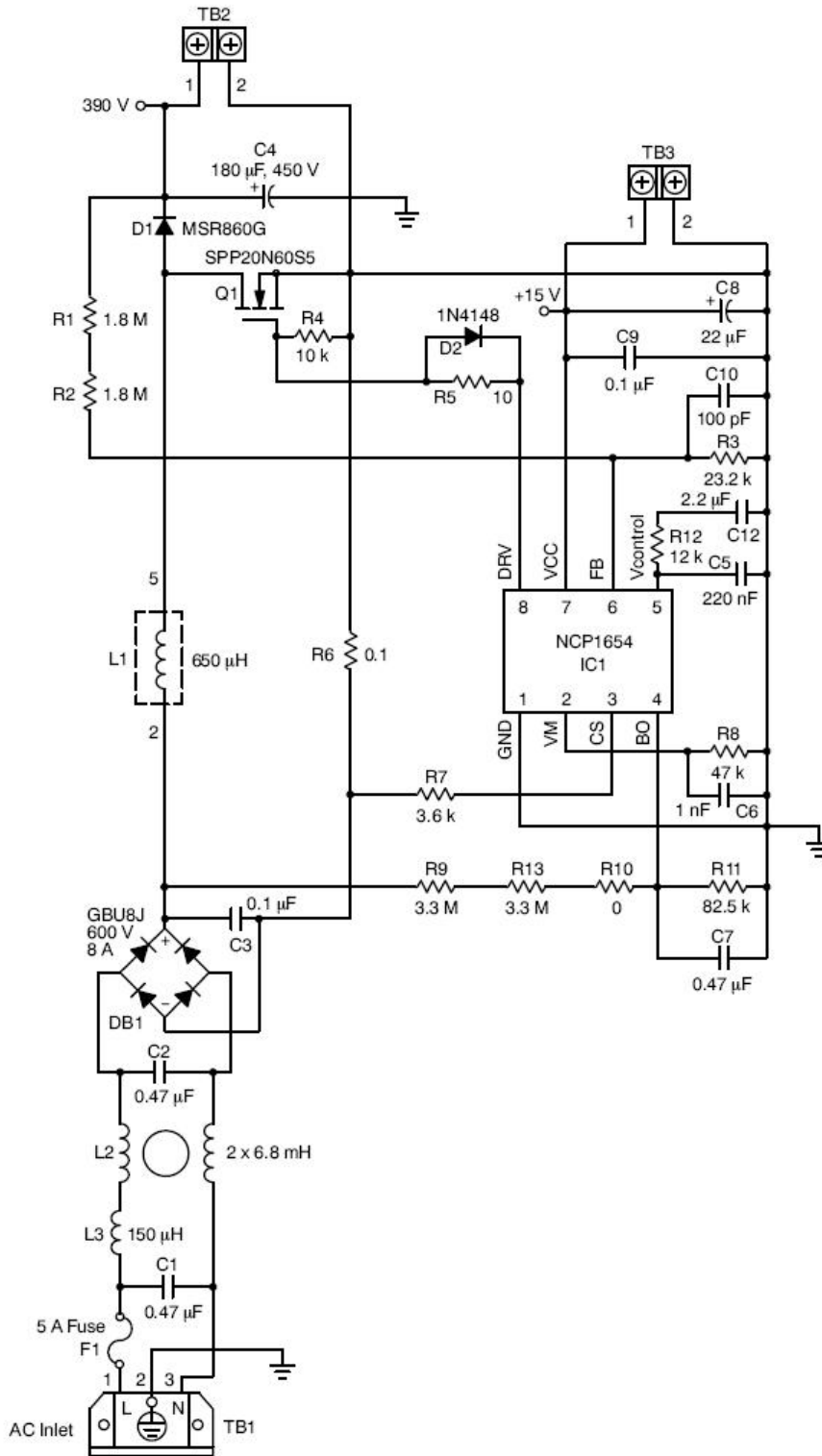
End Products

- Desktop PCs
- Servers

Part Electrical Specifications

Product	Compliance	Status	PFC Mode	Frequency Operation	Control Mode	Topology	f_{sw} Typ (kHz)	V_{cc} Max (V)	Drive Cap. (mA)	UVLO (V)	Latch	UVP	Inhibition	Package Type
NCP1654BD133R2G	Pb-free Halide free	Active	CCM	Fixed	Current Mode	Step-Up	133	20	1500 / 1500	10.5 - 13.75	No	Yes	Yes	SOIC-8
NCP1654BD200R2G	Pb-free Halide free	Active	CCM	Fixed	Current Mode	Step-Up	200	20	1500 / 1500	10.5 - 13.75	No	Yes	Yes	SOIC-8
NCP1654BD65R2G	Pb-free Halide free	Active	CCM	Fixed	Current Mode	Step-Up	65	20	1500 / 1500	10.5 - 13.75	No	Yes	Yes	SOIC-8

Application Diagram



Application Schematic - 300 W 65 kHz
Power Factor Correction Circuit

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

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