

Product Overview

NCP1562: PWM Controller, High Performance, Active Clamp / Reset

For complete documentation, see the data sheet.

The NCP1562x is a family of voltage mode controllers designed for dc-dc converters requiring high efficiency and low parts count. These controllers incorporate two in phase outputs with an overlap delay to prevent simultaneous conduction and facilitates soft switching. The main output is designed for driving a forward converter primary MOSFET. The secondary output is designed for driving an active clamp circuit MOSFET, a synchronous rectifier on the secondary side, or an asymmetric half bridge circuit. The NCP1562 family reduces component count and system size by incorporating high accuracy on critical specifications such as maximum duty cycle limit, undervoltage detector and overcurrent threshold. Two distinctive features of the NCP1562 are soft-stop and a cycle skip current limit with a time threshold. Softstop circuitry powers down the converter in a controlled manner if a severe fault is detected. The cycle skip detector enables a softstop sequence if a continuous overcurrent condition is present. Additional features found in the NCP1562 include line feedforward, frequency synchronization up to 1.0 MHz, cycle by cycle current limit with leading edge blanking (LEB), independent under and overvoltage detectors, adjustable output overlap delay, programmable maximum duty cycle, internal startup circuit and soft-start.

Features

- Soft-Stop Powers Down Converter in a Controlled Manner
 - Independent Line Undervoltage and Overvoltage Detectors
 - Programmable Maximum Volt-Second Product
 - Programmable Soft-Start
 - Internal 100 V Startup Circuit
 - Dual Outputs with Adjustable Overlap Delay
 - >2 A Output Drive Capability
 - Cycle-by-Cycle Current Limit
 - Cycle Skip Initiated if Continuous Current Limit Condition Exists
 - Voltage Mode Operation with Input Voltage Feedforward
- For more features, see the data sheet

Benefits

- Eliminates Resonance Between Active Clamp Capacitor and Primary Inductance
- Reduces External components
- Prevents Transformer Saturation
- Reduces Stress During Power Up
- Eliminates the Need for External Components

Applications

- High power isolated DC/DC converters
- Power supplies

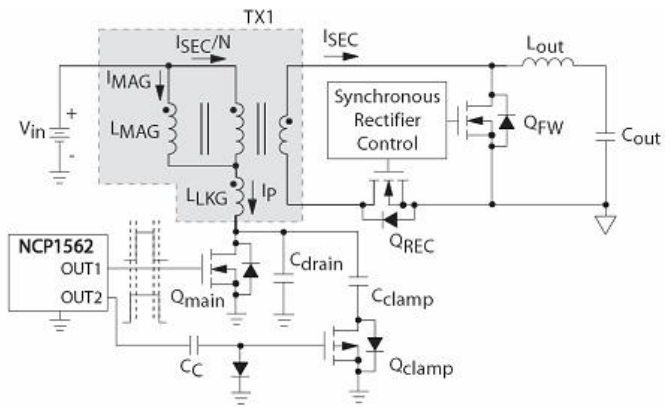
End Products

- Desktop / Server PSU
- Telecom base station PSU
- Flat TV PSU

Part Electrical Specifications

Product	Compliance	Status	Topology	Phases	Control Mode	V _{CC} Min (V)	V _{CC} Max (V)	f _{sw} Typ (kHz)	Package Type
NCP1562ADBR2G	Pb-free	Active	Forward	1	Voltage Mode	8V	100V	Up to 1MHz	TSSOP-16
	Halide free								
NCP1562ADR2G	Pb-free	Active	Forward	1	Voltage Mode	8V	100V	Up to 1MHz	SOIC-16
	Halide free								
NCP1562BDBR2G	Pb-free	Active	Forward	1	Voltage Mode	8V	100V	Up to 1MHz	TSSOP-16
	Halide free								
NCP1562BDR2G	Pb-free	Active	Forward	1	Voltage Mode	8V	100V	Up to 1MHz	SOIC-16
	Halide free								

Application Diagram



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

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