ON Semiconductor®

Energy Efficient Innovations

Product Overview

NCP1587A: Synchronous Buck Controller, Low Voltage

For complete documentation, see the data sheet

Product Description

The NCP1587 and NCP1587A are low cost PWM controllers designed to operate from a 5V or 12V supply. These devices are capable of producing an output voltage as low as 0.8V. These 8 pin devices provide an optimal level of integration to reduce size and cost of the power supply. The NCP1587 and NCP1587A provide a 1A gate driver design and an internally set 275kHz (NCP1587) and 200kHz (NCP1587A) oscillator. Other efficiency enhancing features of the gate driver include adaptive non overlap circuitry. The NCP1587 and NCP1587A also incorporate an externally compensated error amplifier and a capacitor programmable soft start function. Protection features include programmable short circuit protection and under voltage lockout.

Features

- Input voltage range from 4.5 to 13.2V
- Voltage Mode PWM Control
- 0.8V +/- 1% Internal Reference Voltage
- Adjustable Output voltage
- Capacitor Programmable Soft-Start
- Internal 1A Gate Driver
- Programmable Current Limit

Benefits

- Versatility
- Ease of use
- Enhanced performance
- Versatility
- Ease of use
- Enhanced performance
- Ease of use

Applications

- Graphics Cards
- Desktop Computers
- Servers/Networking
- DSP and FPGA Power Supply

End Products

- DC-DC Regulator Modules
- DSP and FPGA Power Supply

Part Electrical Specifications

Product	Compliance	Status	Topology	Phases	Control Mode	V_{CC} Min (V)	V_{CC} Max (V)	f_{SW} Typ (kHz)	t_{res} Typ (ns)	Package Type
NCP1587ADR2G	Pb-free Halide free	Active	Step-Down	1	Voltage Mode	4.5	13.2	180 - 220		SOIC-8

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

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