

Product Overview

NCP3063: Boost / Buck / Inverting Converter, Switching Regulator, 1.5 A

For complete documentation, see the data sheet.

This Buck Boost Inverting Switching Regulator consists of an internal temperature compensated reference, comparator, controlled duty cycle oscillator with an active current limit circuit, driver and high current output switch. New features include an internal thermal shutdown protection and cycle-by-cycle current limit. This series was specifically designed to be incorporated in step-down (buck) and step-up (boost) and voltage-inverting applications with a minimum number of external components. The NCV3063 is available for automotive applications. See NCP3064 for product with ENABLE feature.

Features

- Operation up to 40 V Input
- Frequency operation up to 150 KHz
- Internal thermal Shutdown with hysteresis
- Cycle-by-Cycle Current Limiting
- Excel Based Design Tool

Applications

- Step-Down, Step-Up and Inverting supply applications
- Battery Chargers
- NCV3063 Available for Automotive Applications

Benefits

- Flexibility to operate over a wide range of applications
- Reduced output capacitance and ability to use SMT inductor
- This feature is provided to prevent catastrophic failures from accidental device overheating
- Improved protection capability over MC34063
- Calculate support components and estimate performance.

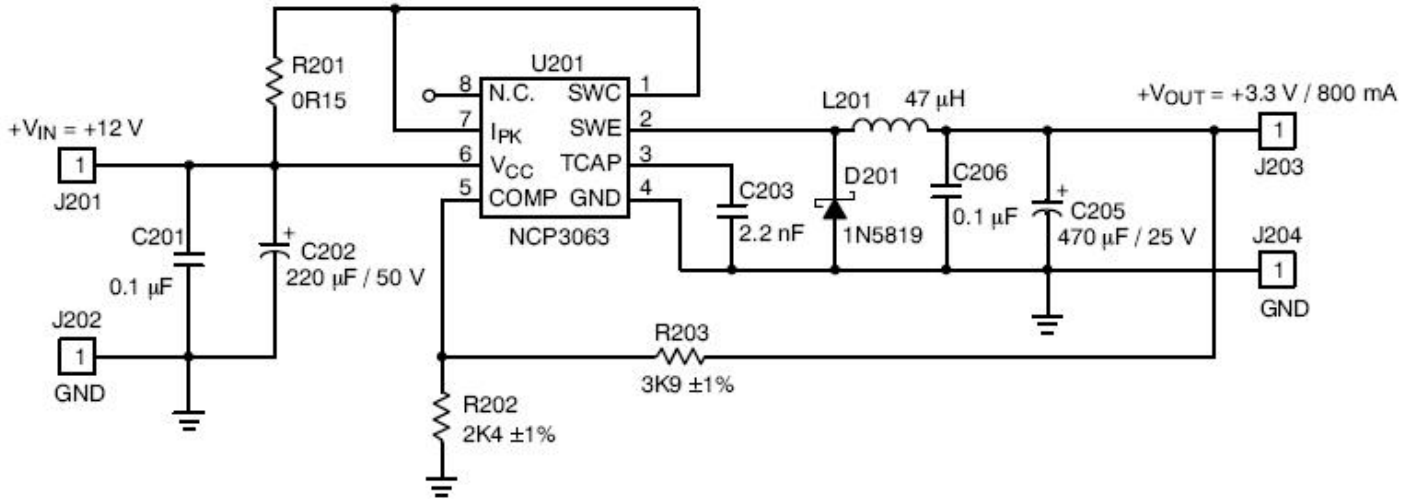
End Products

- Multi-Function Printers (MPF)

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Topology	Control Mode	V _{OC} Min (V)	V _{OC} Max (V)	V _O Typ (V)	I _O Typ (A)	Efficiency (%)	f _{SW} Typ (kHz)	Package Type
NCP3063BDR2G	0.406	Pb-free Halide free non AEC-Q and PPAP	Active	Step-Down Step-Up Step-Up/Step-Down	Hysteretic	3	40	1.25 to 40	1.5	85	150	SOIC-8
NCP3063BMNTXG	0.4829	Pb-free Halide free non AEC-Q and PPAP	Active	Step-Down Step-Up Step-Up/Step-Down	Hysteretic	3	40	1.25 to 40	1.5	85	150	DFN-8
NCP3063DR2G	0.5004	Pb-free Halide free non AEC-Q and PPAP	Active	Step-Down Step-Up Step-Up/Step-Down	Hysteretic	3	40	1.25 to 40	1.5	85	150	SOIC-8
NCP3063MNTXG	0.4777	Pb-free Halide free non AEC-Q and PPAP	Active	Step-Down Step-Up Step-Up/Step-Down	Hysteretic	3	40	1.25 to 40	1.5	85	150	DFN-8

Application Diagram



Typical Buck Application Schematic

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

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