Product Overview

NCV3064: Buck / Boost / Inverting Converter, Switching Regulator, 1.5 A, with On/Off Function

For complete documentation, see the data sheet

Product Description

The NCP3064 Buck Boost Inverting Switching Regulator is a higher frequency upgrade to the popular MC33063A and MC34063A monolithic dc-dc hysteretic converters. These Buck Boost Inverting Switching Regulators consist of an internal temperature compensated reference, comparator, controlled duty cycle oscillator with an active current limit circuit, driver and high current output switch. This series was specifically designed to be incorporated in Step-Down (buck), Step-Up (boost) and Voltage-Inverting applications with a minimum number of external components. It has ON/OFF feature which puts the device into a low power (<100µA) standby state. See NCP3063 for product without ENABLE feature.

Features

- Operation up to 40 V Input
- Frequency operation up to 150 kHz (250 kHz if used as a controller)
- Internal thermal Shutdown with hysteresis
- Cycle-by-Cycle Current Limiting
- Low power standby mode (<100µA)

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
- Extended battery life. Ability to meet Energy Star requirements.

Applications

- NCV3064 available for automotive applications
- Cigarette Lighter Adapter (CLA)

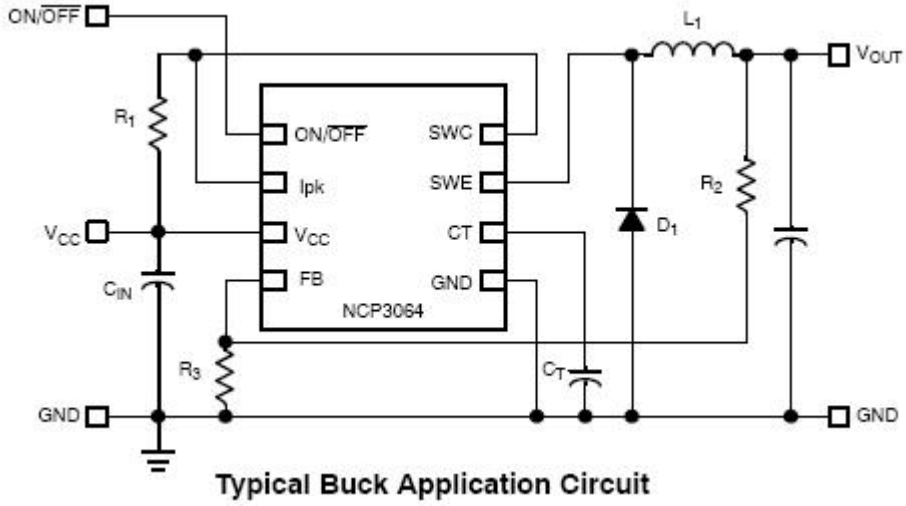
End Products

- Battery Charger

Part Electrical Specifications

Product	Compliance	Status	Topology	Control Mode	V_{CC} Min (V)	V_{CC} Max (V)	V_O Typ (V)	I_O Typ (A)	Efficiency (%)	f_{SW} Typ (kHz)	Package Type
NCV3064DR2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Step-Down Step-Up Step-Up/Step-Down	Hysteretic	3	40	1.25 to 40	1.5	85	Up to 300	SOIC-8
NCV3064MNTXG	AEC Qualified PPAP Capable Pb-free Halide free	Active	Step-Down Step-Up Step-Up/Step-Down	Hysteretic	3	40	1.25 to 40	1.5	85	Up to 300	DFN-8

Application Diagram



Typical Buck Application Circuit

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

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