



Product Overview

NCV51411: Buck Converter, Low Voltage, 1.5 A, 260 kHz, with Synchronization Capabilities

For complete documentation, see the data sheet

Product Description

The NCV51411 is a 1.5A buck regulator IC operating at a fixed-frequency of 260 kHz. The device uses V2 control architecture to provide unmatched transient response, optimum overall regulation and simple loop compensation. The NCV51411 accommodates input voltages from 4.5V to 40V and includes an input for synchronization to an external oscillator. NCV51411 is certified for Automotive applications, and is also available in commercial grade as CS51411.

Features

- V2 Architecture
- 2.0% Error Amp Reference Voltage Tolerance
- Switch Frequency Decrease of 4:1 in Short Circuit Conditions
- BOOST pin provides additional drive voltage to the onchip NPN powertransistor
- Sync Function
- Shutdown pin for sleep mode
- Thermal Shutdown
- Soft-Start
- NCV Prefix for Automotive and Other Applications
- Pin Compatible with LT1375 (SO-8 Version)

Benefits

- Provides Ultra-Fast Transient Response, Improved Regulation and Simplified Design
- Accurate Output Voltage
- Reduces Short Circuit Power Dissipation
- Allows Bootstrapped Operations to Maximize Efficiency
- Parallel Supply Operation or Noise Minimization
- Provides Power-Down Option (<85 μ A Quiescent Current)
- Protects the IC During High Temperature Operation
- Flexibility in System Design
- Provides the Required Site and Control Changes Required for Automotive Customers

Applications

- Automotive Power Supplies

End Products

- In-car Infotainment

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
NCV51411DR2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Step-Down	V2	4.5	40		1.5		260	SOIC-8
NCV51411MNR2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Step-Down	V2	4.5	40		1.5		260	DFN-18
NCV51411PWR2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Step-Down	V2	4.5	40		1.5		260	SOIC-16W

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

Created on: 7/11/2015