

NCP3011

Product Preview Synchronous PWM Controller

The NCP3011 is a PWM device designed to operate from a wide input range and is capable of producing an output voltage as low as 0.8 V. The NCP3011 provides a 1.0 A gate driver and an internally set 400 kHz oscillator. The NCP3011 has an externally compensated transconductance error amplifier with an internally fixed soft-start. The NCP3011 incorporates output voltage monitoring with a Power Good pin to indicate that the system is in regulation. The dual function SYNC pin synchronizes the device to a higher frequency (Slave Mode) or outputs a 180° out-of-phase clock signal to drive another NCP3011 (Master Mode). Protection features include lossless current limit and Short Circuit Protection, Output Overvoltage and Undervoltage Protection, and Input Undervoltage Lockout. The NCP3011 is available in a 14-pin TSSOP package.

Features

- Input Voltage Range from 4.5 V to 28 V
- 400 kHz Operation
- $0.8 \pm 1.0\%$ Reference Voltage
- Buffered External +1.25 V Reference
- Current Limit and Short Circuit Protection
- Power Good
- Enable/Disable Pin
- Input and Output Voltage Protection
- External Synchronization
- Output Overvoltage and Undervoltage Protection
- This is a Pb-Free Device

Typical Applications

- Set Top Box
- Power Modules
- ASIC / DSP Power Supply

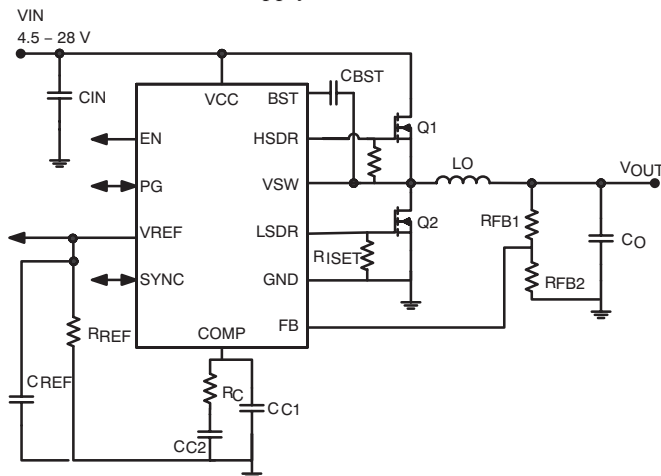


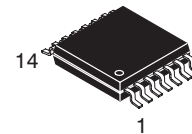
Figure 1. Typical Application Circuit

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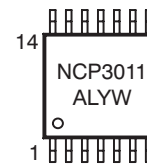
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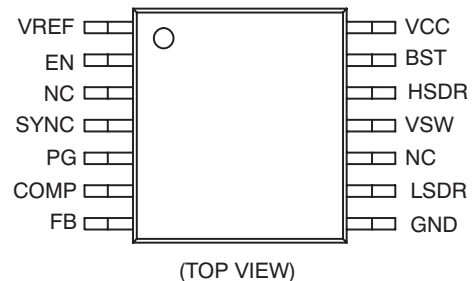
TSSOP-14
DT SUFFIX
CASE 948G

MARKING DIAGRAM



NCP3011 = Device Code
A = Assembly Location
L = Wafer Lot
Y = Year
W = Work Week

PIN CONNECTIONS



ORDERING INFORMATION

Device	Package	Shipping†
NCP3011DTBR2G	TSSOP-14 (Pb-Free)	2500/Tape&Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.