

## Product Overview

### NCP3102: Synchronous Buck Regulator, PWM, 10 A

For complete documentation, see the data sheet.

The NCP3102 is a high efficiency, 10 A Synchronous Pulse Width Modulator (PWM) Buck Regulator designed to operate from a 2.7 V to 18 V supply. The device is capable of producing an output voltage as low as 0.8 V. The NCP3102 can continuously output 10 A through MOSFET switches driven by an internally set 275 kHz oscillator. The 40-pin device provides an optimal level of integration to reduce size and cost of the power supply. The NCP3102 also incorporates an externally compensated transconductance error amplifier and a capacitor programmable soft-start function. Protection features include programmable short circuit protection and under voltage lockout (UVLO). Also available in a 6A version NCP3101. NCP3102 will be replaced by NCP3102C per PCN#16498

#### Features

- Input Voltage Range from 2.7 V to 18 V
- Integrated <10mohm High-side and <10mohm Low-Side FET
- 0.8V +/- 1% Voltage Reference
- Resistor Programmable Current Limit
- Capacitor Programmable Soft-Start
- Small 6x6mm Package

#### Benefits

- Wide input voltage when operating from a split voltage rail
- Greater than 90% Maximum Efficiency
- Increased system accuracy
- Optimize system for output current protection
- Flexibility for power sequencing
- Increased power density

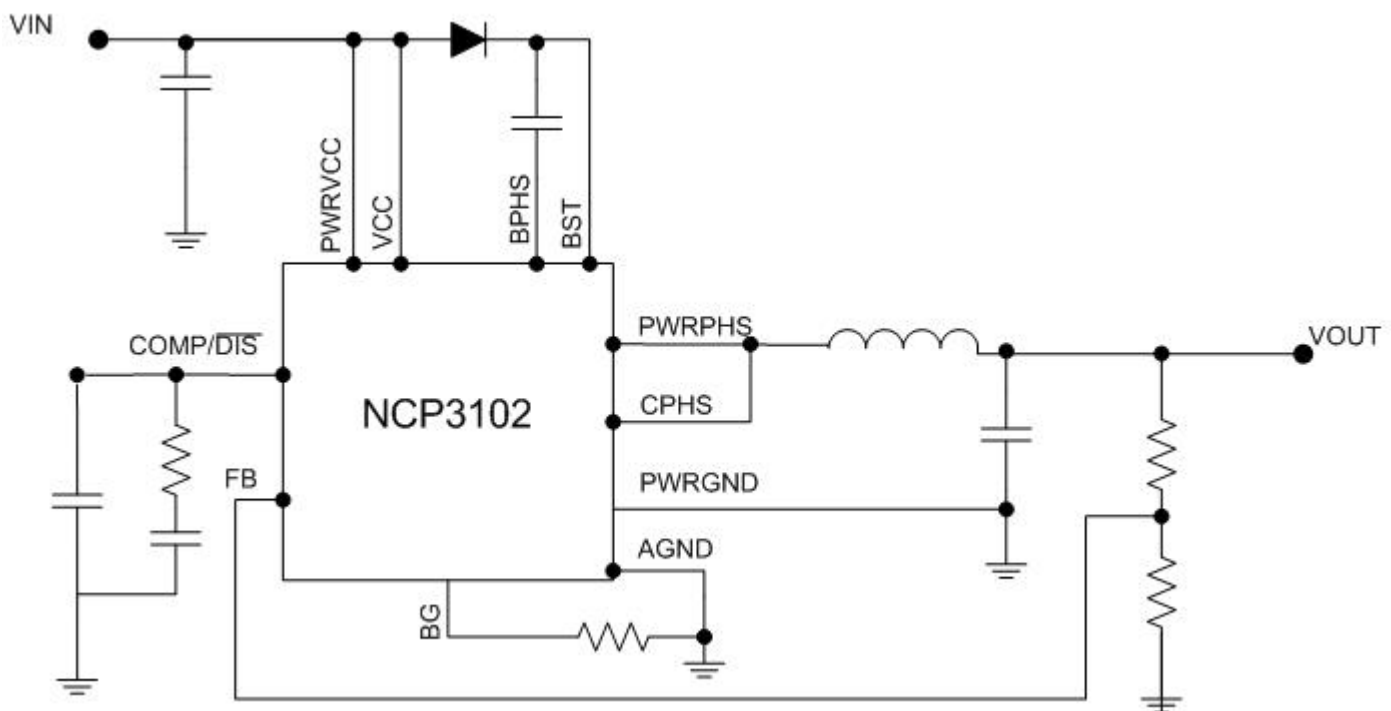
#### Applications

- DSP and FPGA Power Supply

#### End Products

- Servers / Networking
- Basestation
- DC-DC Regulator Modules

#### Application Diagram



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