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NCP3163INVEVB:NCP3163 - 15 V/ 500 mA Voltage Inverting Evaluation Board

Evaluation Board Description

The NCP3163 Series is a performance enhancement to the popular MC33163 and MC34163 monolithic DC -DC converters. These devices 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 controller was specifically designed to be incorporated in step -down, step -up, or voltage -inverting applications with a minimum number of external components. The NCP3163 comes in an exposed pad package which can greatly increase the power dissipation of the built in power switch.



The NCP3163 Voltage Inverting Demo Board is a 150 kHz maximum switching frequency board with a 12 V input (9 V - 16 V). The output is -15 V with a load current up to 500 mA.

Features and Applications

Features

- ? Output Switch Current in excess of 3.0 A
- ? 3.4 A peak switch current
- ? Frequency is adjustable from 50 kHz to 300 kHz
- ? Operation from 2.5 V to 40 V Input
- ? Externally Adjustable Operating Frequency
- ? Precision 2% Reference for Accurate Output Voltage Control
- ? Driver with Bootstrap Capability for Increased Efficiency
- ? Cycle -by -Cycle Current Limiting
- ? Internal Thermal Shutdown Protection
- ? Low Voltage Indicator Output for Direct Microprocessor Interface
- ? Exposed Pad Power Package
- ? Low Standby Current

Evaluation Board Information

| Evaluation Board | Short Description | Status | Parts Used | Action |
|------------------|--|--------|------------|----------------------------|
| NCP3163INVEVB | NCP3163 -15 V/ 500 mA Voltage Inverting Evaluation Board | Active | NCP3163PWG | Contact Local Sales Office |

Technical Documents

| Type | Document Title | Document ID/Size | Rev |
|----------------------------|--|--|-----|
| Eval Board: BOM | NCP3163INVEVB Bill of Material | NCP3163INVEVB_BOM.PDF - 71.0 KB | 0 |
| Eval Board: Gerber | NCP3163INVEVB Gerber Layout Files (Zip Format) | NCP3163INVEVB_GERBERS.ZIP - 37.0 KB | 0 |
| Eval Board: Schematic | NCP3163INVEVB Schematic | NCP3163INVEVB_SCHEMATIC.PDF - 26.0 KB | 0 |
| Eval Board: Test Procedure | NCP3163INVEVB Test Procedure | NCP3163INVEVB_TEST_PROCEDURE.PDF - 32.0 KB | 0 |
| Eval Board: BOM | NCP3163INVEVB Bill of Materials RoHS Compliant | NCP3163INVEVB_BOM_ROHS.PDF - 56.0 KB | 0 |

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