

Product Overview

NCV1034: AEC Qual - 100 V Synchronous Buck Controller

For complete documentation, see the data sheet.

The NCV1034 is a high voltage PWM controller designed for high performance synchronous Buck dc-dc applications. The NCV1034 drives a pair of external N-MOSFETs using a programmable switching frequency up to 500 kHz which allows flexibility to tune the operation of the IC to meet system level requirements. An external synchronization feature allows the simplification of system level filter design. The output voltage can be precisely regulated using the internal 1.25 V reference voltage for low voltage applications. Protections such as under voltage lockout and hiccup current limit are provided to give required system level security in the event of a fault.

Features

- Input voltage up to 100V
- 2 A Output Drive Capability
- 1.25 V +/-2.5% feedback voltage across temperature
- External Frequency Synchronization
- Programmable switching frequency up to 500 kHz
- AEC-Q100 Qualified

Benefits

- Wide input voltage to be used with +48V or +60V input
- Ability to use larger size FETs for increased efficiency
- Excellent system level accuracy across temperature
- Ability to sync to external frequency or output a sync pulse
- Optimization for efficiency and size
- Medium voltage DC-DC systems

Applications

- 48 V Non-Isolated DC-DC Converter
- Automotive High Voltage DC-DC Converters

End Products

- Automotive

Part Electrical Specifications

| Product | Compliance | Status | Topology | Phases | Control Mode | V _{CC} Min (V) | V _{CC} Max (V) | f _{sw} Typ (kHz) | Package Type |
|-------------|---|--------|-----------|--------|--------------|-------------------------|-------------------------|---------------------------|--------------|
| NCV1034DR2G | AEC Qualified PPAP Capable Pb-free Halide free | Active | Step-Down | 1 | Voltage Mode | 8 | 100 | Up to 500 | SOIC-16 |

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

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