

## Product Overview

### NCV898032: Non-Synchronous Boost Controller, Automotive Grade

For complete documentation, see the data sheet.

The NCV898032 is an adjustable output non-synchronous boost controller which drives an external N-channel MOSFET. The device uses peak current mode control with internal slope compensation. The IC incorporates an internal regulator that supplies charge to the gate driver. Protection features include internally-set soft-start, undervoltage lockout, cycle-by-cycle current limiting and thermal shutdown. Additional features include low quiescent current sleep mode and microprocessor compatible input pin.

#### Features

- Peak Current Mode Control with Internal Slope Compensation
- 0.2 V  $\pm$ 3 % Reference Voltage for Constant Current Loads
- 2 MHz Fixed Frequency Operation
- Wide Input Voltage Range of 3.2 V to 40 V, 45 V Load Dump
- Input Undervoltage Lockout (UVLO)
- Internal Soft-Start
- Low Quiescent Current in Sleep Mode ( $< 10 \mu\text{A}$  Typical)
- Cycle-by-Cycle Current Limit Protection
- Hiccup-Mode Overcurrent Protection (OCP)
- Thermal Shutdown (TSD)

For more features, see the data sheet

#### Benefits

- LED PWM Dimming Capable
- Accurate Current/Voltage Regulation
- Facilitates Use of Lower Cost Magnetics and Filter Capacitors
- Designed for Automotive Battery Operating Environment
- Works in a Wide Variety of Applications
- Disables Startup in Undervoltage Conditions
- Very Low Off-State Current
- Protects Against Overcurrent Conditions
- Protects Against Overcurrent Conditions
- Thermally Protects IC

#### Applications

- LED Lighting, Backlighting, Headlamps
- Start-Stop Systems
- Boost, Flyback, SEPIC, Cuk Topologies
- Direct Gas Injection

#### End Products

- Automotive Systems

### Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Topology	Phases	Control Mode	V <sub>CC</sub> Min (V)	V <sub>CC</sub> Max (V)	f <sub>sw</sub> Typ (kHz)	Package Type
NCV898032D1R2G	1.36	AEC Qualified PPAP Capable Pb-free Halide free	Active	Step-Up Flyback Forward	1	Current Mode	3.2	45	2000	SOIC-8

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