



Product Overview

NCV4299C: 150 mA Low-Dropout Voltage Regulator

For complete documentation, see the data sheet

Product Description

The NCV4299C is a family of precision micropower voltage regulators with an output current capability of 150 mA. It is available in 5.0 V or 3.3 V output voltage.

The output voltage is accurate within $\pm 2\%$ with a maximum dropout voltage of 0.5 V at 100 mA. Low Quiescent current is a feature drawing only 80 μA with a 100 μA load. This part is ideal for any and all battery operated microprocessor equipment.

The device features microprocessor interfaces including an adjustable reset output and adjustable system monitor to provide shutdown early warning. An inhibit function is available. With inhibit active, the regulator turns off and the device consumes less than 1.0 μA of quiescent current.

The part can withstand load dump transients making it suitable for use in automotive environments.

Features

- 5.0 V, 3.3 V $\pm 2\%$, 150 mA
- Low Current Consumption 80 μA (Typ) in the ON Mode
Extremely Low Current Consumption 1.0 μA in the Off Mode
- Early Warning Output Capability
- Adjustable Reset Threshold and Reset Output Low Down to $V_Q = 1.0\text{ V}$
- Fault protection:
60 V (Typ) peak Transient Voltage protection
-40 V Reverse Input Voltage protection
Short circuit protection
Thermal overload protection

Benefits

- Tight regulation limits
- Save battery life
- Microprocessor power management feature, design flexibility
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- No external components required to enable protections required within any automotive applications

Applications

- Body and Chassis
- Powertrain, Engine Control Unit

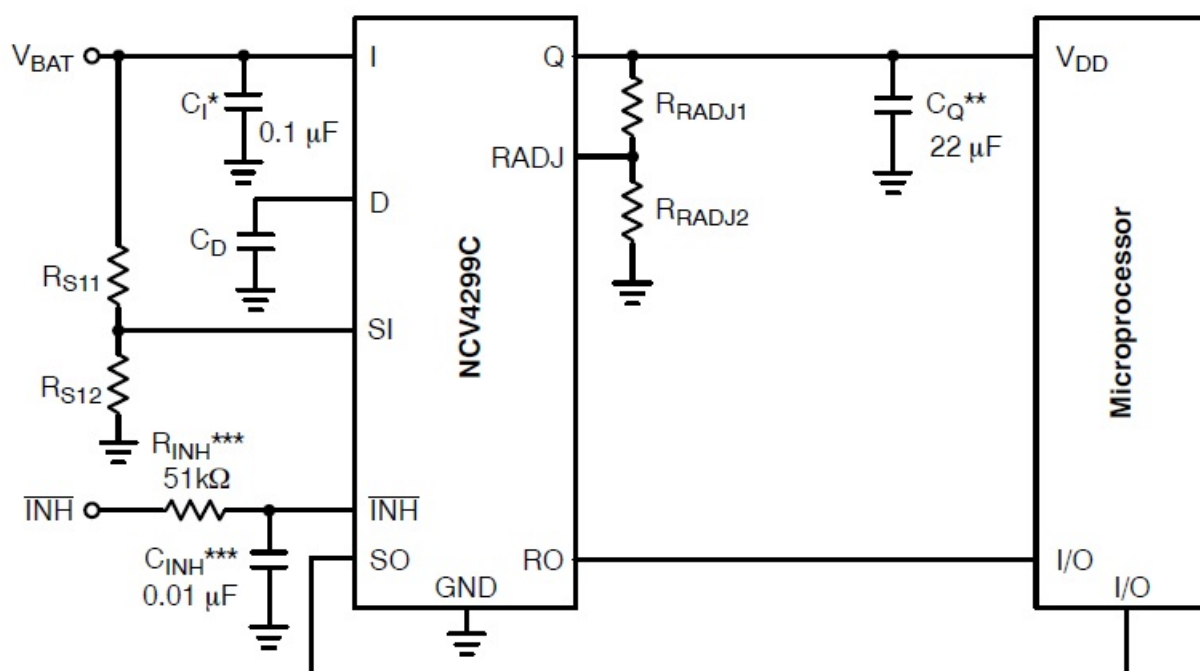
End Products

- Automotive

Part Electrical Specifications

Product	Compliance	Status	Output	Polarity	V_O (V)	I_O Typ (A)	V_I Max (V)	V_{DO} Typ (V)	I_q Typ (mA)	PSRR (dB)	Noise (μV_{rms})	Package Type
NCV4299CD133R2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.15	45		0.08	66		SOIC-8
NCV4299CD150R2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	5	0.15	45	0.26	0.08	66		SOIC-8
NCV4299CD233R2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.15	45		0.08	66		SOIC-14
NCV4299CD250R2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	5	0.15	45	0.26	0.08	66		SOIC-14

Application Diagram



* C_I required if regulator is located far from the power supply filter.

** C_Q required for stability. Cap must operate at minimum temperature expected.

***This RC filter is only required when transients with slew rate in excess of 10 V/ μs may be present on the \overline{INH} voltage source during operation. The filter is not required when \overline{INH} is connected to a noise-free DC voltage.

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

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