



Product Overview

NCV4276C: Linear Voltage Regulator, Low-Dropout (LDO), 400 mA

For complete documentation, see the data sheet

Product Description

The NCV4276C is a 400 mA output current integrated low-dropout (LDO) regulator family designed for use in harsh automotive environments. It includes wide operating temperature and input voltage ranges. The device is offered with 3.3 V, 5.0 V, and adjustable voltage versions available in 2% output voltage accuracy. It has a high peak input voltage tolerance and reverse input voltage protection. It also provides overcurrent protection, overtemperature protection and inhibit for control of the state of the output voltage. The NCV4276C family is available in DPAK and D2PAK surface mount packages. The output is stable over a wide output capacitance and ESR range. The NCV4276C has improved startup behavior during input voltage transients.

Features	Benefits
<ul style="list-style-type: none">• 3.3 V, 5.0 V, and Adjustable Voltage Version (from 2.5 V to 20 V) ±2% Output Voltage• 500 mV (max) Dropout Voltage (5.0 V Output)• Inhibit Input• AEC-Q100 Qualified• Fault Protections:• +45 V Peak Transient Voltage• -42 V Reverse Voltage• Short Circuit• Thermal Overload• Output Current up to 400 mA	<ul style="list-style-type: none">• Our vast portfolio of automotive regulators allows you to select the one which fits your application.• Regulates during cranking.• Save battery life - quiescent current down to 10µA max.• Meets automotive qualification requirements.• No external components required to enable protections required within any automotive applications.

Applications	End Products
<ul style="list-style-type: none">• Body and Chassis• Engine Control Unit• Powertrain	<ul style="list-style-type: none">• 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
NCV4276CDS33R4G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.4	45		0.095	70		D ² PAK-5
NCV4276CDS50R4G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	5	0.4	45	0.25	0.095	70		D ² PAK-5
NCV4276CDSADJR4G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	Adjustable	0.4	45	0.25	0.095	70		D ² PAK-5
NCV4276CDT33RKG	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.4	45		0.095	70		DPAK-5
NCV4276CDT50RKG	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	5	0.4	45	0.25	0.095	70		DPAK-5
NCV4276CDTADJRKG	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	Adjustable	0.4	45	0.25	0.095	70		DPAK-5

Application Diagram

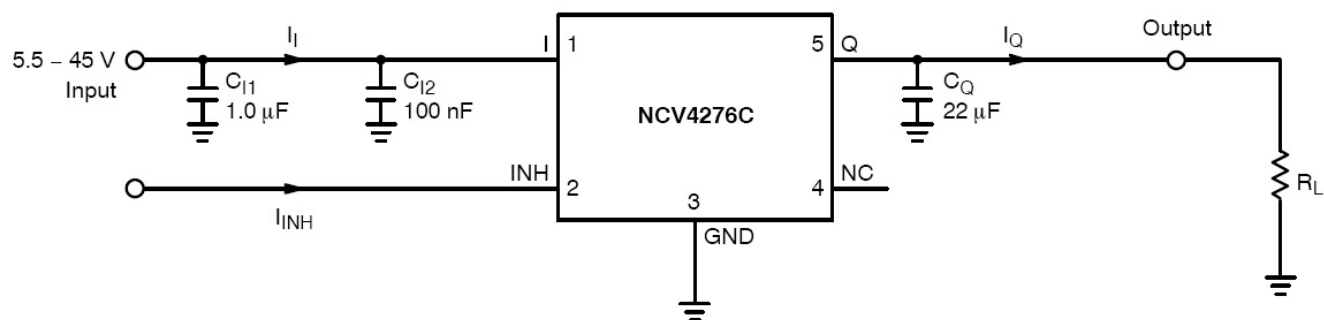
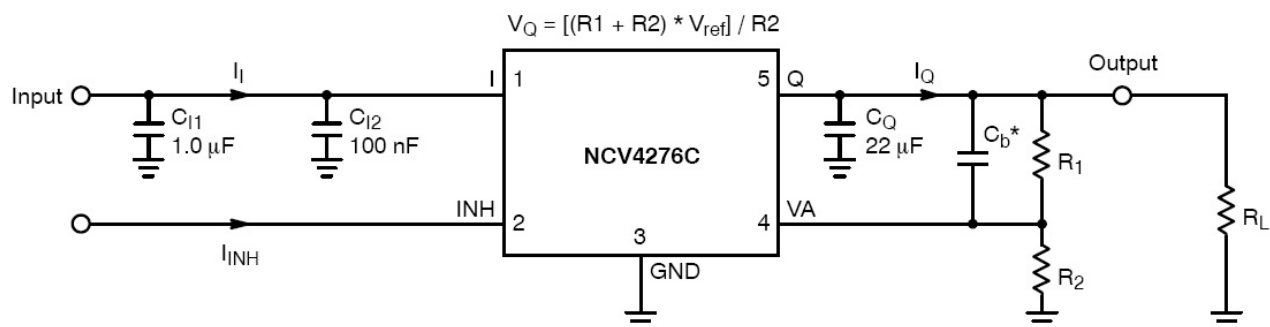


Figure 3. Applications Circuit; Fixed Voltage Version



C_b^* – Required if usage of low ESR output capacitor C_Q is demand, see Regulator Stability Considerations section

Figure 4. Applications Circuit; Adjustable Voltage Version

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