

Product Overview

NCV4276C: LDO Regulator, 400 mA, Low Dropout

For complete documentation, see the data sheet.

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

- 3.3 V, 5.0 V, and Adjustable Voltage Version (from 2.5 V to 20 V) $\pm 2\%$ 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

For more features, see the data sheet

Applications

- Body and Chassis
- Engine Control Unit
- Powertrain

Benefits

- 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 10 μ A max.
- Meets automotive qualification requirements.
- No external components required to enable protections required within any automotive applications.

End Products

- Automotive

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Output	Polarity	V _o (V)	I _o Typ (A)	V _i Min (V)	V _i Max (V)	V _{DO} Typ (V)	I _g Typ (mA)	PSR R (dB)	Noise (μV _{rms})	Enable	Power Good	Application	Package Type
NCV4276CDS33R4G	0.7249	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.4	-42	45	0.25	0.095	70	-	Yes	No	Automotive	DPAK-5
NCV4276CDS50R4G	0.7863	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	5	0.4	-42	45	0.25	0.095	70	-	Yes	No	Automotive	DPAK-5
NCV4276CDSADJR4G	0.8442	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	Adj	0.4	-42	45	0.25	0.095	70	-	Yes	No	Automotive	DPAK-5
NCV4276CDT33RKG	0.4954	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.4	-42	45	0.25	0.095	70	-	Yes	No	Automotive	DPAK-5
NCV4276CDT50RKG	0.4954	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	5	0.4	-42	45	0.25	0.095	70	-	Yes	No	Automotive	DPAK-5
NCV4276CDTADJRKG	0.5296	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	Adj	0.4	-42	45	0.25	0.095	70	-	Yes	No	Automotive	DPAK-5
NCV4276CDTADJT5G	0.5296	AEC Qualified PPAP Capable Pb-free Halide free	Active													Automotive	DPAK-5

Application Diagram

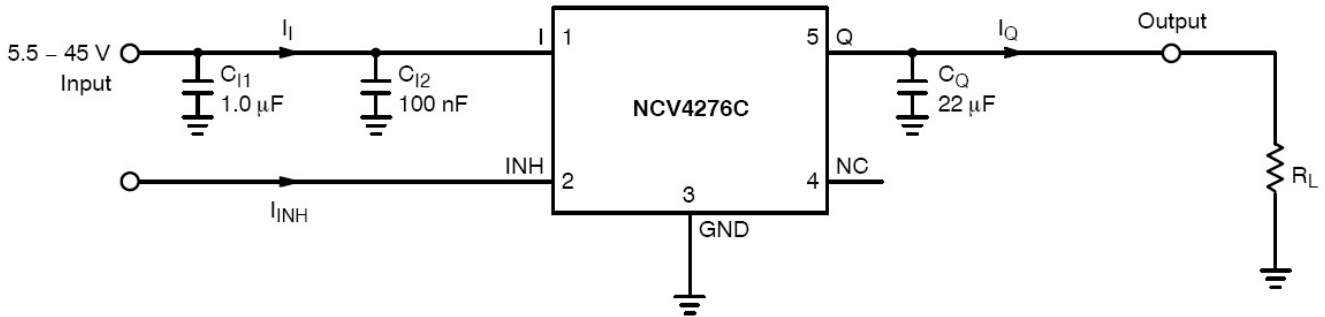
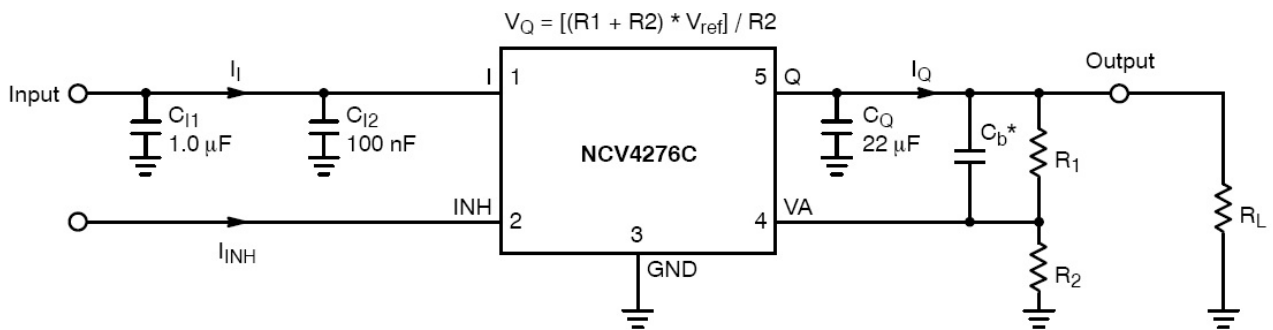


Figure 3. Applications Circuit; Fixed Voltage Version



$V_Q = [(R1 + R2) * V_{ref}] / R2$
 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

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

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