



Product Overview

NCV8505: Linear Voltage Regulator, LDO, 400 mA, with Enable, Delay and Reset

For complete documentation, see the data sheet

Product Description

The NCV8505 is a family of precision micropower voltage regulators with 400mA output current capability. The family has output voltage options for adjustable, 2.5 V, 3.3 V and 5.0 V that are accurate within $\pm 2.0\%$. Maximum dropout voltage reaches 0.6 V at full load.

Low quiescent current is a feature drawing less than 1.0 μA with ENABLE = 0 V. This part is ideal for any and all battery operated microprocessor equipment.

Microprocessor control logic includes an active RESET (with DELAY). The active RESET circuit operates correctly at an output voltage as low as 1.0 V. The RESET function is activated during the power up sequence or during normal operation if the output voltage drops below the regulation limits.

The regulator is protected against reverse battery, short circuit, and thermal overload conditions. The device can withstand load dump transients making it suitable for use in automotive environments.

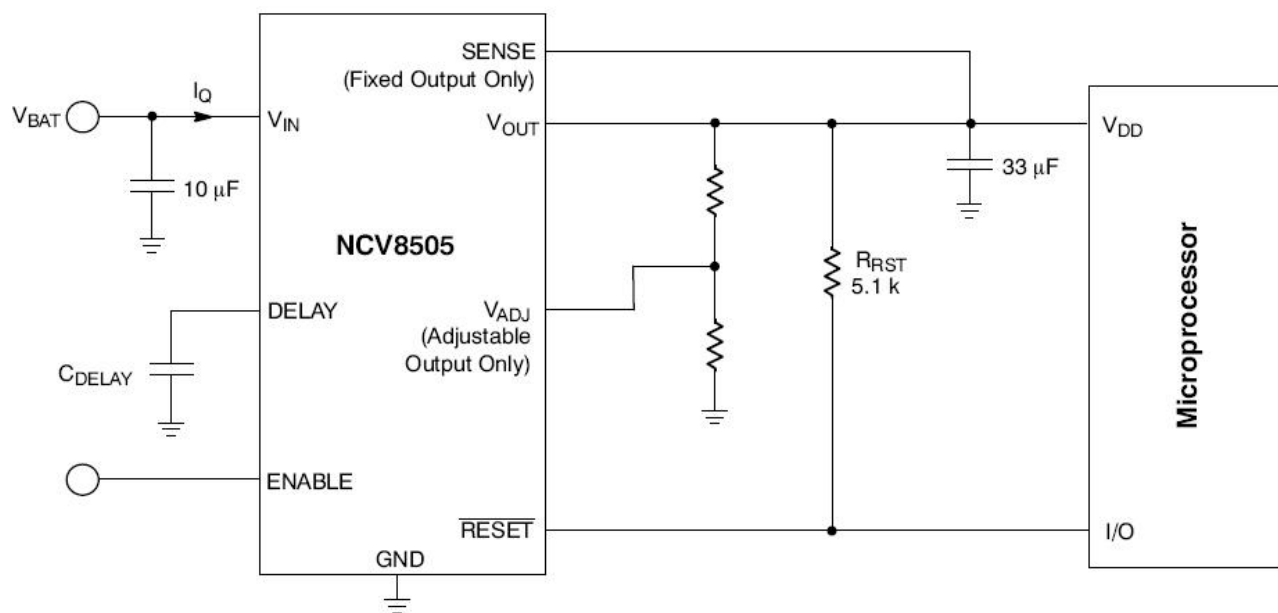
Features	Benefits
<ul style="list-style-type: none"> Adjustable, 2.5V, 3.3V, 5.0V $\pm 2\%$ Output Voltage / 400mA Output Current Enable Reset with Adjustable Delay Integrated protections: <ul style="list-style-type: none"> +60V Peak Transient Voltage -15V Reverse Voltage Short Circuit Protection Thermal Overload Protection AEC Qualified and PPAP Capable 	<ul style="list-style-type: none"> Tight regulation limits Low $<1\mu\text{A}$ Sleep Current allowing low standby battery drain MPU control - design flexibility Limit number of external components: <ul style="list-style-type: none"> Robust load dump tolerance Reverse battery protection Self protection Self protection

Applications	End Products
<ul style="list-style-type: none"> Powertrain Body and Chassis 	<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
NCV8505D2T33R4G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.4	45	0.4	0.2			D ² PAK-7
NCV8505D2T50R4G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	5	0.4	45	0.4	0.2			D ² PAK-7
NCV8505D2TADJR4G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	Adjustable	0.4	45	0.4	0.2			D ² PAK-7

Application Diagram



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

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