



Product Overview

NCV8668: LDO Regulator, Very Low Iq, 150 mA, with Window Watchdog, Enable and Reset

For complete documentation, see the data sheet

Product Description

The NCV8668 is 150 mA LDO regulator with integrated window watchdog and reset functions dedicated for microprocessor applications. Its robustness allows NCV8668 to be used in severe automotive environments, Very low quiescent current as low as 38  $\mu$ A typical makes it suitable for applications permanently connected to battery requiring very low quiescent current with or without load. The Enable function can be used for further decrease of quiescent current down to 1  $\mu$ A. The NCV8668 contains protection functions as current limit and thermal shutdown.

Features	Benefits
<ul style="list-style-type: none"><li>• 5.0 V, <math>\pm</math>2%, 150 mA</li><li>• Very Low Quiescent Current: Typ 38 <math>\mu</math>A</li><li>• Very Low Dropout Voltage</li><li>• Enable Function</li><li>• Reset with Adjustable Power-on Delay</li><li>• Window Watchdog</li><li>• Integrated Protection Features: Current Limitation Thermal Shutdown</li><li>• NCV Prefix for Automotive</li></ul>	<ul style="list-style-type: none"><li>• Tight regulation limits</li><li>• Save battery life</li><li>• Maintains output voltage regulation at low input voltages (especially during automotive cranking).</li><li>• External control over the device</li><li>• Prohibits the microprocessor from performing unrequested tasks at low voltage.</li><li>• MPU control</li><li>• Self protection</li><li>• Meets automotive Site and change control &amp; AEC-Q100 Qualification requirements.</li></ul>

Applications	End Products
<ul style="list-style-type: none"><li>• Body Control Module</li><li>• Instrument and Clusters</li><li>• Occupant Protection and Comfort</li><li>• Powertrain</li></ul>	<ul style="list-style-type: none"><li>• Automotive</li></ul>

## Part Electrical Specifications

Product	Compliance	Status	Output	Polarity	V <sub>O</sub> (V)	I <sub>O</sub> Typ (A)	V <sub>I</sub> Max (V)	V <sub>DO</sub> Typ (V)	I <sub>q</sub> Typ (mA)	PSRR (dB)	Noise (μV <sub>rms</sub> )	Package Type
NCV8668ABD133R2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.15	40	0.225	0.038	60		SOIC-8
NCV8668ABD150R2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	5	0.15	40	0.225	0.038	60		SOIC-8
NCV8668ABD250R2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	5	0.15	40	0.225	0.038	60		SOIC-14
NCV8668ABPD33R2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.15	40	0.225	0.038	60		SOIC-8 EP
NCV8668ABPD50R2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	5	0.15	40	0.225	0.038	60		SOIC-8 EP

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