Product Overview

NCV8518B: LDO Regulator, 250 mA, High PSRR

For complete documentation, see the data sheet.

The NCV8518B device is a precision micropower voltage regulator. It has a fixed output voltage of 5.0 V and regulates within ±2%. Microprocessor control logic includes an active RESET (with DELAY), wakeup, watchdog and enable. The NCV8518B Wakeup function brings the microprocessor out of Sleep mode. The microprocessor in turn signals its Wakeup status back to the NCV8518B by issuing a Watchdog signal. 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, during normal operation if the output voltage drops below the regulation limits or if the regulator does not receive a Watchdog signal within a Wakeup period. The Watchdog logic function monitors an input signal (WDI) from the microprocessor. The device responds to the falling edge of the Watchdog signal which it expects at least once during each Wakeup period. Enable is a standard TTL and CMOS logic compatible input that can be used to turn the regulator on or off. In the disabled/shutdown state, the pass transistor is off and total quiescent current is less than 1 μA.Also encompassed in this device are safety features such as thermal shutdown and short circuit protection, an important consideration in automotive environments. NCV8518B is pin for pin compatible with NCV8518A and can replace this device in any new design.

Features

- 5.0 V 2% Output Voltage / 250 mA Output Current
- Low Quiescent Current (100 μA typ) at full load
- Micropower compatible control functions: Enable, Watchdog, Reset, Adjustable Reset Delay, Wake Up
- Protection Features:45 V operationThermal shutdownShort ciruit
- Enable
- AEC Q100 Qualified
- Pin for pin compatible with NCV8518A

Benefits

- Tight Regulation Limits, Perfect for powering microprocessors.
- Quiescent current independant from load current; ideal for systems requiring interrupts while in standby
- MPU control - design flexibility
- No external components required to enable protections required within any automotive applications.
- Low sleep mode current of less than 1 μA. Save battery life.
- Meets automotive qualification requirements.
- Can replace NCV8518A in any new design.

Applications

- Body and Chassis
- Instrument and Clusters
- Engine Control Unit
- Safety
- Tyre Pressure Monitor

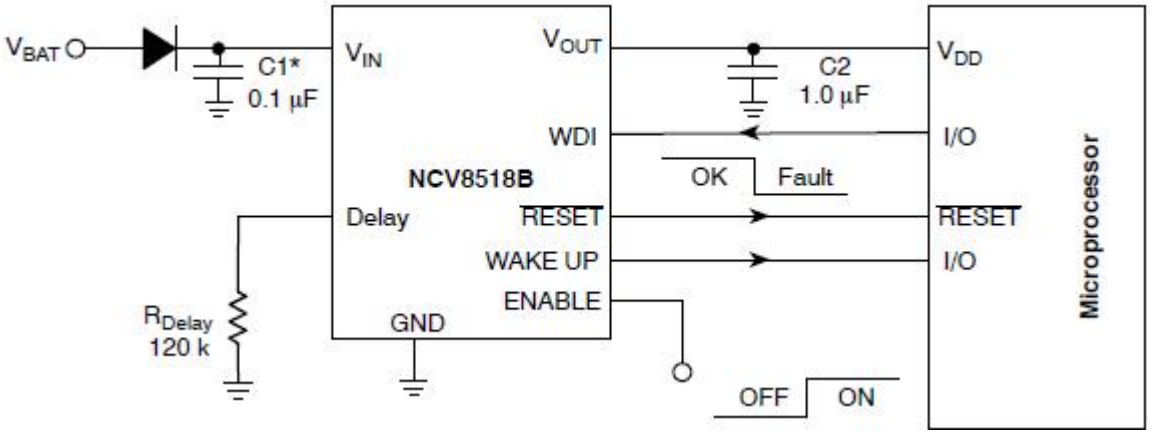
End Products

- 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_q Typ (mA)	PSRR (dB)	Noise (μV_{rms})	Enable	PowerGood	Package Type
NCV8518BPDR2G	0.72	AEC Qualified PPAP Capable Pb-free	Active	Single	Positive	5	0.25	6	45	0.425	0.1	70	-	Yes	No	SOIC-8 EP
NCV8518BPWR2G	0.8	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	5	0.25	6	45	0.425	0.1	70	-	Yes	No	SOIC-16 WB EP

Application Diagram



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