Product Overview

NCV7120: Hex Solenoid Current Controller with N-FET Predrivers

For complete documentation, see the data sheet.

The NCV7120 is a six-channel solenoid current controller with low side predrivers for discrete N-FETs. The chip can be used in accurate current controlled solenoid applications. Each predriver channel contains a programmable PWM current controller with dithering modulation. The NCV7120 is accessible via SPI.
For safety and protection, the chip is equipped with 3 high side predrivers. Two of these can be used to switch a common top predriver. One high side driver can be used for active reverse polarity protection.
The NCV7120 has advanced diagnostic features and fault protection functions.

Features

- Operating Supply Range from 6 V up to 26 V
- 6-Channel Solenoid Current Measurement and Control
- Average Current up to 1.2 A, Peak Current up to 1.65 A
- Accuracy ± 3mA to ± 6mA in Operating Range
- On-chip Sense Resistors
- Low Side FET predriver ON, OFF or PWM (1 kHz ... 5 kHz)
- Programmable Kp, Ki, Dither Amplitude and Frequency
- Open- and Overcurrent Detection and Protection per Channel
- AEC-Q100 Qualified and PPAP Capable
- Supporting ISO-26262 Documentation Available

  For more features, see the data sheet

Applications

- Automotive powertrain, body and chassis applications
- Hydraulic Controls
- Pneumatic Controls
- Accurate Current Controls
- Proportional Valves

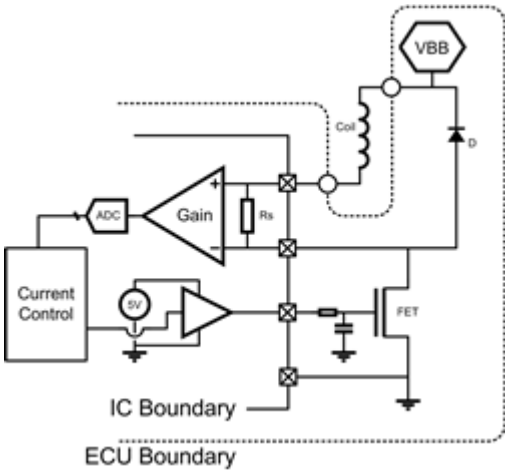
End Products

- TCU or TCM - Transmission Control Unit / Module
- PCM - Power Control Unit
- ECU - Engine Control Unit
- Suspension Control Unit
- Engine Management System

Part Electrical Specifications

Product	Pricing ($/Unit)	Compliance	Status	Power Switch	Number of Outputs	Topology	Isolation Type	V_{in} Max (V)	V_{CC} Max (V)	Drive Source/Sink Typ (mA)	Rise Time (ns)	Fall Time (ns)	t_p Max (ns)	Package Type
NCV7120FP0R2G		AEC Qualified PPAP Capable Pb-free Halide free	Active	MOSFET	6		Non-Isolated	-	26	-	-	-	-	TQFP-64 EP

Application Diagram



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