

Product Overview

NCV5701: IGBT Gate Drivers, High-Current, Stand-Alone

For complete documentation, see the data sheet.

The NCV5701 series is a set of high-current, high-performance stand-alone IGBT drivers for medium-to-high power applications that include induction heating, welding, solar inverters, motor control and uninterruptable power supplies. The devices offer a cost-effective solution by eliminating many external components. Device protection features include Active Miller Clamp (for NCV5701A), accurate UVLO, DESAT protection and Active Low FAULT output. The drivers also feature an accurate 5.0 V output (for all versions) and separate high and low (VOH and VOL) driver outputs (for NCV5701C only) for system design convenience. The drivers are designed to accommodate a wide voltage range of unipolar bias supplies (and bipolar bias supplies for NCV5701B). All versions are available in an 8-pin SOIC package and AEC-Q100 qualified.

Features

- High Current Output (+4.0/-6.0 A) at IGBT Miller Plateau voltages
- Low VOH and VOL
- Active Miller Clamp (NCD5701A only)
- DESAT Protection with Programmable Delay

Applications

- DC-AC Inverter
- Battery Charger
- Driver
- Automotive PTC Heater

Benefits

- Reduced switching losses and short switching times
- Full enhancement of IGBT
- Prevents Spurious Gate Turn-on
- Enhanced programmable protection

End Products

- Motor Control
- Electric Vehicles

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 _o Max (ns)	Package Type
NCV5701ADR2G		AEC Qualified PPAP Capable Pb-free Halide free	Active	IGBT	1	Single	Non-Isolated	5.5	35	5000 / 5000	30	30	70	SOIC-8
NCV5701BDR2G		AEC Qualified PPAP Capable Pb-free Halide free	Active	IGBT	1	Single	Non-Isolated	5.5	35	5000 / 5000	30	30	70	SOIC-8
NCV5701CDR2G		AEC Qualified PPAP Capable Pb-free Halide free	Active	IGBT	1	Single	Non-Isolated	5.5	35	5000 / 5000	30	30	70	SOIC-8

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

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