NCD57080

Isolated High Current Gate Driver

Product Overview

For complete documentation, see the data sheet.

NCD57080A, NCD57080B and NCD57080C are high-current single channel IGBT gate drivers with 3.75 kVrms internal galvanic isolation, designed for high system efficiency and reliability in high power applications. The devices accept complementary inputs and depending on the pin configuration, offer options such as Active Miller Clamp (NCD57080A), negative power supply (NCD57080B) and separate high and low (OUTH and OUTL) driver outputs (NCD57080C) for system design convenience. NCD57080 (A/B/C) accommodate wide range of input bias voltage and signal levels from 3.3V to 20V. NCD57080 (A/B/C) are available in narrow-body SOIC-8 package.

Features

- High Peak Output Current (+6.5 A/-6.5 A)
- Short Propagation Delays with Accurate Matching
- High Transient & Electromagnetic Immunity
- 3.75 KVrms On-Chip Galvanic Isolation
- Wide Bias Voltage Ranges and Input Voltage Range
- Active Miller Clamp or Negative Gate Voltage or Split Outputs

Benefits

- Improves system efficiency
- Improves PWM signal integrity
- Ruggedness in fast slew rate high voltage and high current switching applications
- Saves cost and board space while offering improved performance compared to opto-drivers
- Offers system design flexibility and allows the usage of commonly available system voltage rails
- Offers a choice in selecting the right feature in a compact package

Applications

- UPS
- Motor Control
- Industrial Power Supplies
- HVAC
- Solar Inverters

End Products

- Industrial Motor Drives
- Data Center & Server Power Supplies
- Energy Storage and Charging Systems

Part Electrical Specifications

Product	Pricing ($/Unit)	Compliance	Status	Power Switch	Number of Outputs	Topology	Isolation Type	V_{in} Max (V)	V_{CC} Max (V)	Rise Time (ns)	Fall Time (ns)	Drive Source Current Typ (A)	Drive Sink Current Typ (A)	Turn On Prop. Delay Typ (ns)	Turn Off Prop. Delay Typ (ns)	Delay Matching	Package Type
NCD57080ADR2G	0.92	Pb H	Active	IGBT	1	Single	Galvanic Isolation	20	30	10	6	6.5	6.5	60	60	6	SOIC-8
NCD57080BDR2G	2.0876	Pb H	Active	IGBT	1	Single	Galvanic Isolation	20	30	10	6	6.5	6.5	60	60	6	SOIC-8
NCD57080CDR2G	2.0876	Pb H	Active	IGBT	1	Single	Galvanic Isolation	20	30	10	6	6.5	6.5	60	60	6	SOIC-8
NCV57080ADR2G	1.035	A P Pb H	Active	IGBT	1	Single	Galvanic Isolation	20	30	10	6	6.5	6.5	60	60	6	SOIC-8
NCV57080BDR2G	1.035	A P Pb H	Active	IGBT	1	Single	Galvanic Isolation	20	30	10	6	6.5	6.5	60	60	6	SOIC-8
NCV57080CDR2G	1.035	A P Pb H	Active	IGBT	1	Single	Galvanic Isolation	20	30	10	6	6.5	6.5	60	60	6	SOIC-8