Product Overview

NCD57001: Isolated high current and high efficiency IGBT gate driver with internal galvanic isolation

For complete documentation, see the data sheet.

NCD57001 is a high-current single channel IGBT driver with internal galvanic isolation, designed for high system efficiency and reliability in high power applications. Its features include complementary inputs, open drain FAULT and Ready outputs, active Miller clamp, accurate UVLOs, DESAT protection, and soft turn-off at DESAT. NCD57001 accommodates both 5V and 3.3V signals on the input side and wide bias voltage range on the driver side including negative voltage capability. NCD57001 provides > 5 kVrms (UL1577 rating) galvanic isolation and > 1200 Viorm (working voltage) capabilities. NCD57001 is available in the wide-body SOIC-16 package with guaranteed 8 mm creepage distance between input and output to fulfill reinforced safety insulation requirements.

Features

- High Current Output(+4/-6 A) at IGBT Miller Plateau Voltages
- Short Propagation Delays with Accurate Matching
- DESAT with Soft Turn Off
- Active Miller Clamp and Negative Gate Voltage
- High Transient & Electromagnetic Immunity
- 5 kV Galvanic Isolation

Benefits

- Improves system efficiency
- Improves PWM signal integrity
- Protection against overload and short circuits
- Prevents spurious gate turn-on
- Ruggedness in fast slew rate high voltage and high current switching applications
- Galvanic isolation to separate high voltage and low voltage sides to provide safety and protection

Applications

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

Part Electrical Specifications

Product	Compliance	Status	Type	Number of Drivers	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
NCD57001DWR2G	Pb-free Halide free	Active	Drivers	1	5.5	24	6000 / 6000	10	15	90	SOIC-16W

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

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