ON Semiconductor® **Energy Efficient Innovations**

Product Overview

NCV57000: IGBT Gate Driver, Isolated High Current and High Efficiency, with Internal Galvanic Isolation

For complete documentation, see the data sheet.

NCV57000 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, soft turn-off at DESAT, and separate high and low (OUTH and OUTL) driver outputs for system design convenience. NCV57000 accommodates both 5V and 3.3V signals on the input side and wide bias voltage range on the driver side including negative voltage capability. NCV57000 provides > 5 kVrms (UL1577 rating) galvanic isolation and > 1200 Viorm (working voltage) capabilities. NCV57000 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

- Automotive Power Supplies
- HEV/EV Traction Inverters
- OBC
- BSG Inverters
- PTC Heaters

End Products

- Automobiles
- xEV/EV Automobiles

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
NCV57000DWR2G		AEC Qualified PPAP Capable Pb-free Halide free	Active	SiC MOSFET IGBT	1	Single	Galvanic Isolation	5.5	24	6000 / 6000	10	15	90	SOIC-16W

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

Created on: 7/24/2020