NCD(V)5709x – 5 kV Isolated Single Channel Gate Driver

Value Proposition

NCx57090y, NCx57091y are high−current single channel IGBT/MOSFET gate drivers with 5 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 (version A/D/F), negative power supply (version B) and separate high and low (OUTH and OUTL) driver outputs (version C/E) for system design convenience.

Unique Features

- High Peak Output Current (+6.5 A/−6.5 A)
- Low Clamp Voltage Drop Eliminates the Need of Negative Power Supply to Prevent Spurious Gate Turn−on (Version A/D/F)
- Short Propagation Delays with Accurate Matching
- IGBT/MOSFET Gate Clamping during Short Circuit
- IGBT/MOSFET Gate Active Pull Down
- Tight UVLO Thresholds for Bias Flexibility
- Wide Bias Voltage Range including Negative VEE2 (Version B)

Other Features

- 3.3 V, 5 V, and 15 V Logic Input
- 5 kVrms Galvanic Isolation
- High Transient Immunity
- High Electromagnetic Immunity
- NCV Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC−Q100 Qualified and PPAP Capable
- These Devices are Pb−Free, Halogen Free/BFR Free and are RoHS Compliant

Market & Applications

- Motor Control
- Uninterruptible Power Supplies (UPS)
- Industrial Power Supplies
- Automotive Applications
- Industrial Power Supplies
- Solar Inverter

Typical Application Circuit

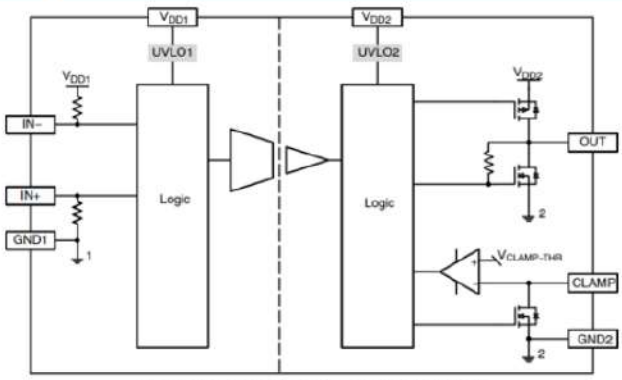

Figure 2. Simplified Block Diagram, NCD57090A/D/F

Ordering & Package information

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