













## NCD57252

# Isolated Dual-Channel IGBT Gate Driver

NCD(V)57252/3/5/6 are highcurrent dual-channel isolated IGBT gate drivers with 2.5 or 5 kVrms\* internal galvanic isolation from input to each output and functional isolation between the two output channels. The device accepts 3.3 V to 20 V bias voltage and signal levels on the input side and up to 32 V bias voltage on the output side. The device accepts complementary inputs and offers separate pins for Disable and Dead Time control for system design convenience. Drivers are available in wide-body SOIC16 and narrow-body SOIC16 packages.

- High Peak Output Current ( $\pm 6.5$  A,  $\pm 3.5$  A)
  - Configurable as a Dual Low-Side or Dual High-Side or Half-Bridge Driver
  - Tight UVLO Thresholds on all Power Supplies
  - 3.3 V, 5 V, and 15 V Logic Input
  - 2.5 or 5 kVrms Galvanic Isolation from Input to each Output and 1.5 kVrms Differential Voltage between Output Channels
  - Short Propagation Delays with Accurate Matching
  - Programmable Overlap or Dead Time control
  - Disable Pin to Turn Off Outputs for Power Sequencing
  - ANB Function to Offer Flexibility to Set up the Driver as Half-bridge Driver Operating with a Single Input Signal
  - IGBT/MOSFET Gate Clamping during Short Circuit
- For more features, see the data sheet
- Enables Removal of Buffer
  - Design Flexibility
  - Consistent Performance
  - Design Flexibility
  - Meets Safety Requirements
  - Faster Switching Capability
- Automotive Applications
  - Industrial Applications
  - EV Chargers
  - Uninterruptible Power Supplies (UPS)
  - Industrial Power Supplies
  - Traction Inverters
  - PLC Motor Control

	Pricing (\$/Unit)	Compliance	Status	Power Switch	Number of Outputs	Topology	Isolation Type	V <sub>in</sub> Max (V)	V <sub>CC</sub> 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
NCD57252DWR2G	2.07	 	Active	IGBT	2	Dual	Galvanic Isolation	22	36	12	10	6.5	6.5	60	60	15	SOIC-16W
NCD57253DWR2G	2.3999	 	Active	SiC MOSFET	2	Dual	Galvanic Isolation	22	36	12	10	6.5	6.5	60	60	15	SOIC-16W
NCD57255DR2G	2.1333	 	Active	IGBT	2	Dual	Galvanic Isolation	22	36	12	10	3.5	3.5	60	60	15	SOIC-16
NCV57252DWR2G	2.07	  	Active	IGBT	2	Dual	Galvanic Isolation	22	36	12	10	6.5	6.5	60	60	15	SOIC-16W
NCV57255DR2G	2.3333	  	Active	IGBT	2	Dual	Galvanic Isolation	22	36	12	10	3.5	3.5	60	60	15	SOIC-16