

## Product Overview

### FNB51560TD1: Intelligent Power Module, 600 V, 15A

For complete documentation, see the data sheet.

FNB51560TD1 is a Motion SPM 55 module providing a fully-featured, high-performance inverter output stage for AC Induction, BLDC, and PMSM motors. These modules integrate optimized gate drive of the built-in IGBTs to minimize EMI and losses, while also providing multiple on-module protection features including under-voltage lockouts, inter-lock function, over-current shutdown, thermal monitoring of drive IC, and fault reporting. The built-in, high-speed HVIC requires only a single supply voltage and translates the incoming logic-level gate inputs to the high-voltage, high-current drive signals required to properly drive the module's robust shortcircuit-rated IGBTs. Separate negative IGBT terminals are available for each phase to support the widest variety of control algorithms.

### Features

- UL Certified No. E209204 (UL1557)
- 600 V - 15 A 3-Phase IGBT Inverter Including Control IC for Gate Drive and Protections
- Low-Loss, Short-Circuit Rated IGBTs
- Built-In Bootstrap Diodes in HVIC
- Separate Open-Emitter Pins from Low-Side IGBTs for Three-Phase Current Sensing
- Active-HIGH interface, works with 3.3 / 5 V Logic, Schmitt-trigger Input
- HVIC for Gate Driving, Under-Voltage and Short-Circuit Current Protection
- Fault Output for Under-Voltage and Short-Circuit Current Protection
- Inter-Lock Function to Prevent Short-Circuit
- Shut-Down Input

For more features, see the data sheet

### Applications

- Motion Control - Home Appliance/Industrial Motor

### Part Electrical Specifications

Product	Compliance	Status	Family	Rated Voltage Min (V)	$I_o$ @ 25 °C Min (A)	$V_{CE(sat)}$ @ 25 °C Typ (V)	$R_{DS(on)}$ (Ω)	Emitter Configuration	Shutdown Pin	Package Type
FNB51560TD1	Pb-free	Active	SPM® 55 Series	600	15	1.9		3 emitter pins	No	DIP-020

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

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