Product Overview

NFAM5065L4B: Intelligent Power Module, SPM31, 650 V, 50A

For complete documentation, see the data sheet.

NFAL5065L4B is an advanced Motion SPM 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, 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 internal IGBTs. Separate negative IGBT terminals are available for each phase to support the widest variety of control algorithms.

Features

- 650 V - 50 A 3-Phase IGBT Inverter with Integral Gate Drivers and Protection
- Low-Loss, Short-Circuit Rated IGBTs (FS4)
- Very Low Thermal Resistance Using
- Built-In Bootstrap Diodes and Dedicated Vs Pins Simplify PCB Layout
- Single-Grounded Power Supply
- Isolation Rating: 2500 Vrms / 1 min.

Applications

- Inverter for AC Induction, BLDC, and PMSM motors.

End Products

- Factory automation
- Commercial Air conditioner
- HVAC
- Robotics

Part Electrical Specifications

<table>
<thead>
<tr>
<th>Product</th>
<th>Pricing ($/Unit)</th>
<th>Compliance Status</th>
<th>Family</th>
<th>Rated Voltage Min (V)</th>
<th>Ic @ 25 °C Min (A)</th>
<th>VCE(sat) @ 25 °C Typ (V)</th>
<th>RDS(on) (Ω)</th>
<th>Emitter Configuration</th>
<th>Shutdown Pin</th>
<th>Package Type</th>
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<tbody>
<tr>
<td>NFAM5065L4B</td>
<td>23.3328</td>
<td>Pb-free</td>
<td>NEW</td>
<td>SPM31</td>
<td>650</td>
<td>50</td>
<td>1.65</td>
<td>3 emitter pins</td>
<td>Yes</td>
<td>DIP39, 54.5x31.0 EP-2</td>
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For more information please contact your local sales support at www.onsemi.com.

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