Product Overview

FSB50760SFS: Intelligent Power Module, 600V, 7A

For complete documentation, see the data sheet.

The FSB50760SFS is an advanced Motion SPM® 5 module providing a fully-featured, high-performance inverter output stage for AC Induction, BLDC and PMSM motors such as refrigerators, fans and pumps. These modules integrate optimized gate drive of the built-in MOSFETs(SuperFET® technology) to minimize EMI and losses, while also providing multiple on-module protection features including under-voltage lockouts and thermal monitoring. 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 MOSFETs. Separate open-source MOSFET terminals are available for each phase to support the widest variety of control algorithms.

Features

• UL Certified No. E209204 (UL1557)
• 600 V $R_{DS(on)} = 530$ mΩ (Max) SuperFET MOSFET 3-Phase Inverter with Gate Drivers and Protection
• Built-in Bootstrap Diodes Simplify PCB Layout
• Separate Open-Source Pins from Low-Side MOSFETS for Three-Phase Current-Sensing
• Active-HIGH Interface, Works with 3.3 / 5 V Logic, Schmitt-trigger Input
• Optimized for Low Electromagnetic Interference
• HVIC Temperature-Sensing Built-in for Temperature Monitoring
• HVIC for Gate Driving and Under-Voltage Protection
• Isolation Rating: 1500 Vrms / 1 min.
• Moisture Sensitive Level (MSL) 3
  For more features, see the data sheet

Applications

• Motion Control - Home Appliance/Industrial Motor

Part Electrical Specifications

<table>
<thead>
<tr>
<th>Product</th>
<th>Compliance</th>
<th>Status</th>
<th>Family</th>
<th>Rated Voltage Min (V)</th>
<th>$I_{D} @ 25^\circ C$ Min (A)</th>
<th>$V_{CE(sat)} @ 25^\circ C$ Typ (V)</th>
<th>$R_{DS(on)}$ (Ω)</th>
<th>Emitter Configuration</th>
<th>Shutdown Pin</th>
<th>Package Type</th>
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</thead>
<tbody>
<tr>
<td>FSB50760SFS</td>
<td>Pb-free</td>
<td>Active</td>
<td>SPM® 5 Series</td>
<td>600</td>
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<td>-</td>
<td>0.46</td>
<td>3 source pins</td>
<td>No</td>
<td>SMD-023</td>
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For more information please contact your local sales support at www.onsemi.com.
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