FAN3213T_F085

Dual-4 A, High-Speed, Low-Side Gate Driver

Product Overview

For complete documentation, see the data sheet.

The FAN3213 and FAN3214 dual 4 A gate drivers are designed to drive N-channel enhancement-mode MOSFETs in low-side switching applications by providing high peak current pulses during the short switching intervals. They are both available with TTL input thresholds. Internal circuitry provides an under-voltage lockout function by holding the output LOW until the supply voltage is within the operating range. In addition, the drivers feature matched internal propagation delays between A and B channels for applications requiring dual gate drives with critical timing, such as synchronous rectifiers. This also enables connecting two drivers in parallel to effectively double the current capability driving a single MOSFET. The FAN3213/14 drivers incorporate MillerDrive™ architecture for the final output stage. This bipolar-MOSFET combination provides high current during the Miller plateau stage of the MOSFET turn-on / turn-off process to minimize switching loss, while providing rail-to-rail voltage swing and reverse current capability. The FAN3213 offers two inverting drivers and the FAN3214 offers two non-inverting drivers. Both are offered in a standard 8-pin SOIC package.

Features

- Industry-Standard Pin out
- 4.5 to 18V Operating Range
- 5A Peak Sink/Source at VDD = 12V
- 4.3A Sink / 2.8A Source at VOUT = 6V
- TTL Input Thresholds
- Two Versions of Dual Independent Drivers: - Dual Inverting (FAN3213) - Dual Non-Inverting (FAN3214)
- Internal Resistors Turn Driver Off If No Inputs
- MillerDrive™ Technology
- 12ns / 9ns Typical Rise/Fall Times with 2.2nF Load
- Typical Propagation Delay Under 20ns Matched within 1ns to the Other Channel

For more features, see the data sheet

Part Electrical Specifications

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<tr>
<th>Product</th>
<th>Pricing ($/Unit)</th>
<th>Compliance</th>
<th>Stat</th>
<th>Power Switch</th>
<th>Num of Outputs</th>
<th>Topology</th>
<th>Isolation Type</th>
<th>V INM (V)</th>
<th>V CC Max (V)</th>
<th>Rise Time (ns)</th>
<th>Fall Time (ns)</th>
<th>Turn On Prop Delay Typ (ns)</th>
<th>Turn Off Prop Delay Typ (ns)</th>
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<tbody>
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<td>Active</td>
<td>MOSFET</td>
<td>Dual Non-Isolated</td>
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