Product Overview

FAN8811T: High-Frequency, High Side and Low Side Gate Driver IC

For complete documentation, see the data sheet.

The FAN8811 is high side and low side gate-drive IC designed for high-voltage, high-speed, driving MOSFETs operating up to 80V.The FAN8811 integrates a driver IC and a bootstrap diode. The driver IC features low delay time and matched PWM input propagation delays, which further enhance the performance of the part.The high speed dual gate driver are designed to drive both the high-side and low-side of N-Channel MOSFETs in a half bridge or synchronous buck configuration. The floating high-side driver is capable of operating with supply voltages of up to 80 V. In the dual gate driver, the high side and low side each have independent inputs which allow maximum flexibility of input control signals in the application. The PWM input signal (high level) can be 3.3 V, 5 V or up to VDD logic input to cover all possible applications. The bootstrap diode for the high-side driver bias supply is integrated in the chip. The high-side driver is referenced to the switch node (HS) which is typically the source pin of the high-side MOSFET and drain pin of the low-side MOSFET. The low-side driver is referenced to VSS which is typically ground. The functions contained are the input stages, UVLO protection, level shift, bootstrap diode, and output driver stages.

Features

- Drives two N-Channel MOSFETs in High & Low Side
- Integrated Bootstrap Diode for High Side Gate Drive
- Bootstrap Supply Voltage Range up to 100V
- 3 A Source, 6 A Sink Output Current Capability
- Drives 1nF Load with Typical Rise/Fall Times of 6 ns/4 ns
- TTL Compatible Input Thresholds
- Wide Supply Voltage Range 7.5 V to 16 V (Absolute Maximum 18 V)
- Fast Propagation Delay Times (Typ. 30 ns)
- 2 ns Delay Matching (Typical)
- Under-Voltage Lockout (UVLO) Protection for Drive Voltage

For more features, see the data sheet

Applications

- Half-Bridge and Full-Bridge Converters
- Synchronous-Buck Converters
- Two-Switch Forward Converters

End Products

- Power Supplies for Telecom and Datacom
- Class-D Audio Amplifiers

Part Electrical Specifications

Product	Pricing ($/Unit)	Compliance	Status	Power Switch	Number of Outputs	Topology	Isolation Type	V_{in} Max (V)	V_{CC} Max (V)	Drive Source/Sink Typ (mA)	Rise Time (ns)	Fall Time (ns)	t_p Max (ns)	Package Type
FAN8811MNTXG	1.0242	Pb-free Halide free non AEC-Q and PPAP	NEW											WDFN-10
FAN8811TMPX	1.0242	Pb-free Halide free non AEC-Q and PPAP	Active	MOSFET	2	High-Low	Junction Isolation	100	18	3000 / 6000	6	4	45	WDFN-10

For more information please contact your local sales support at www.onsemi.com.

Created on: 1/17/2021