

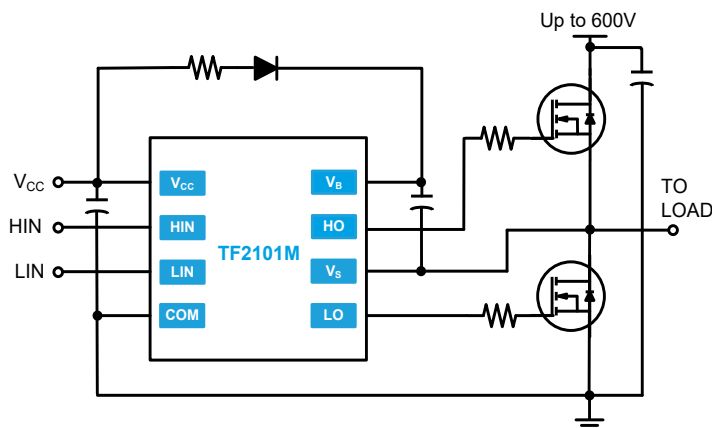
Features

- Floating high-side driver in bootstrap operation to 600V
- Drives two N-channel MOSFETs or IGBTs in high-side/low-side configuration
- Outputs tolerant to negative transients
- Wide low-side gate driver and logic supply: 10V to 20V
- Logic inputs CMOS and TTL compatible (down to 3.3V)
- Schmitt triggered logic inputs with internal pull down
- Undervoltage lockout for V_{CC}
- Space-saving SOIC-8 package available
- Extended temperature range: -40°C to +125°C

Applications

- DC-DC Converters
- AC-DC Inverters
- Motor Controls
- Class D Power Amplifiers

Typical Application



Description

The TF2101M is a high voltage, high speed gate driver capable of driving N-channel MOSFETs and IGBTs in a high-side/low-side configuration. TF Semiconductor's high voltage process enables the TF2101M's high-side to switch to 600V in a bootstrap operation. The 50ns (max) propagation delay matching between the high and the low side drivers allows high frequency switching.

The TF2101M logic inputs are compatible with standard TTL and CMOS levels (down to 3.3V) for easy interfacing with controlling devices. The driver outputs feature high pulse current buffers designed for minimum driver cross conduction. The low-side gate driver and logic share a common ground

The TF2101M is available in a space-saving 8-pin SOIC package and an 8-pin PDIP; the operating temperature extends from -40°C to +125°C.



SOIC-8(N)



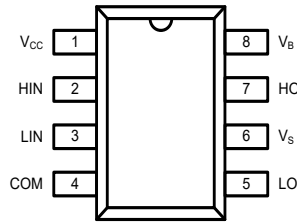
PDIP-8

Ordering Information

Year Year Week Week

PART NUMBER	PACKAGE	PACK / Qty	MARK
TF2101M-TAU	SOIC-8(N)	Tube / 100	TF YYWW TF2101M Lot ID
TF2101M-TAH	SOIC-8(N)	T & R / 2500	TF YYWW TF2101M Lot ID
TF2101M-3AS	PDIP-8	Tube / 50	TF YYWW TF2101M Lot ID

Pin Diagrams



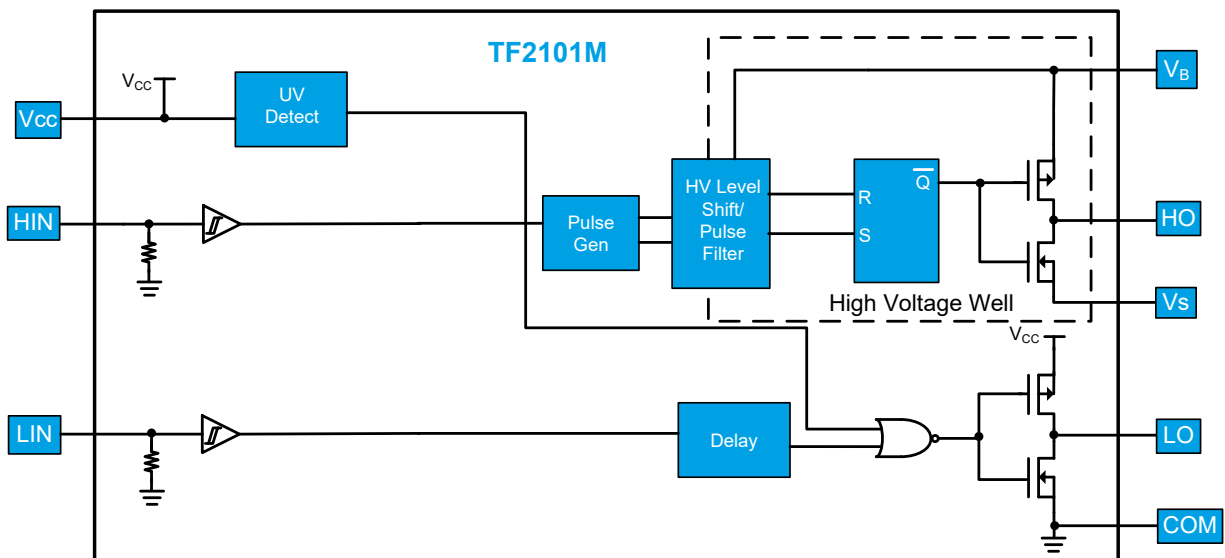
Top View: PDIP-8, SOIC-8

TF2101M

Pin Descriptions

PIN NAME	PIN DESCRIPTION
HIN	Logic input for high-side gate driver output (HO), in phase
LIN	Logic input for low-side gate driver output (LO), in phase
V _b	High-side floating supply
HO	High-side gate drive output
V _s	High-side floating supply return
V _{cc}	Low-side and logic fixed supply
LO	Low-side gate drive output
COM	Low-side return
NC	"No connect" pin

Functional Block Diagram



Revision History

Rev.	Change	Owner	Date
1.0	First release	D. Walton	12/7/2022

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