



Features

- Efficient, low-cost solution for driving MOSFETs and IGBTs
- Wide supply voltage operating range: 4.5V to 18V
- 1.9A source / 1.8A sink output current capability
- Inverting and non-inverting input configurations
- Undervoltage lockout for V_{cc} supply.
- Fast propagation delays (35ns typical)
- Fast rise and fall times (15ns typical)
- Logic input (IN) 3.3V capability
- Space saving SOT23-5L package
- Extended temperature range: -40°C to +125°C

Applications

- Switch mode power supplies
- Motor Drive
- Line Drivers
- DC-DC Converters



Description

The TF0215/16 high speed, low side MOSFET and IGBT drivers are capable of driving 1.9A of peak current. The TF0215/16 logic inputs are compatible with standard TTL and CMOS levels (down to 3.3V) to interface easily with MCUs. Internal undervoltage lockout (UVLO) will protect MOSFET with loss of supply by turning off the output when V_{cc} falls below operating range. Fast and well matched propagation delays allow high speed operation, enabling a smaller, more compact power switching design using smaller associated components.

High Speed, Low-Side, Single Gate Driver

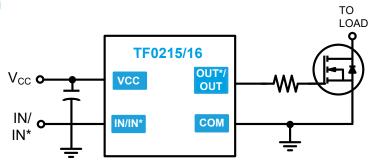
These devices are highly resistant to noise by being able to withstand up to 5V positive or negative on the ground pin without damage. Also they can accept 500mA of reverse current forced back into its outputs without damage or logic change. The TF0215 provides an inverted output and the TF0216 provides a noninverting output. The TF0215/16 comes in a space-saving SOT23-5L package and it operates over an extended -40 °C to +125 °C temperature range.

Ordering Information

Year Year Week Week

PART NUMBER	PACKAGE	PACK / Qty	MARK
TF0215-USQ	SOT-23-5L	T&R / 3,000	T0215/16 YYWW
TF0216-USQ	SOT-23-5L	T&R / 3,000	

Typical Application

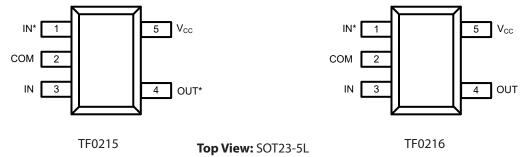


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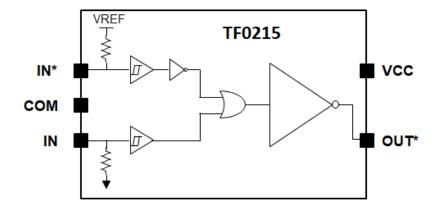
High Speed, Low-Side, Single Gate Driver

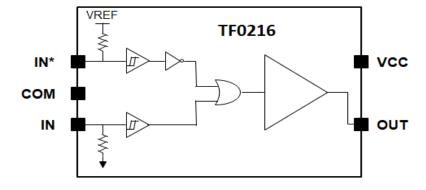


Pin Descriptions

PIN NAME	PIN NUMBER	PIN DESCRIPTION
IN*	1	Logic input, in phase with OUT* (TF0215), out of phase with OUT (TF0216), leave open when not in use.
COM	2	Supply return
IN	3	Logic input, out of phase with OUT* (TF0215), in phase with OUT (TF0216), leave open when not in use.
OUT*/OUT	4	Gate drive output
V _{cc}	5	Supply input

Functional Block Diagram





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High Speed, Low-Side, Single Gate Driver

Rev.	Change	Owner	Date
1.0	First release	D. Walton	12/16/2022

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