

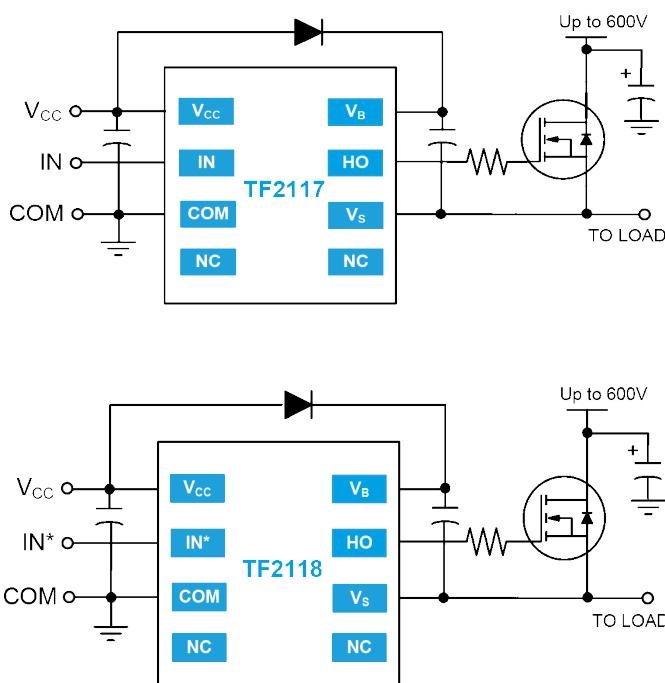
### Features

- Floating channel in bootstrap operation to 600V
- Drives one N-channel MOSFET or IGBT
- Outputs tolerant to negative transients
- Wide logic supply: 10V to 20V
- Schmitt triggered logic input with internal pull down
- Undervoltage lockout for  $V_{CC}$  and  $V_{BS}$
- Extended temperature range: -40°C to +125°C

### Applications

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

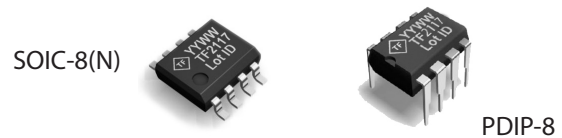
### Typical Application



### Description





The TF2117 and TF2118 are high voltage, high speed gate drivers capable of driving one N-channel MOSFETs and IGBTs in a bootstrap operation. TF Semiconductor's high voltage process enables the TF2117 and TF2118 to switch at 600V. The TF2117 and TF2118 logic input is compatible with standard CMOS outputs (to 3.3V). The driver output features high pulse current buffers designed for minimum driver cross conduction. The single floating channel can be used in high side or low side configuration.

The TF2117 and TF2118 are offered in a space saving 8-pin SOIC and 8-pin PDIP package. They operate over an extended -40 °C to +125 °C temperature range.

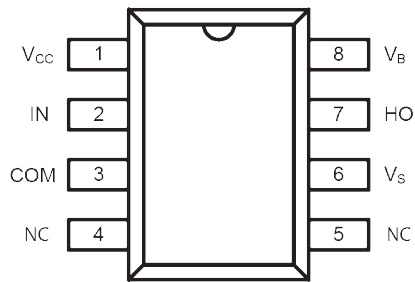


### Ordering Information

Year Year Week Week

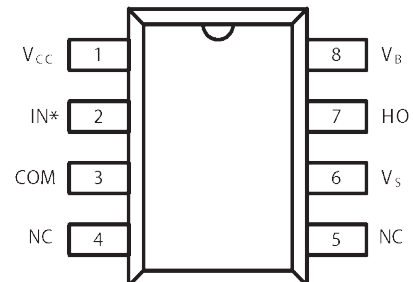
| PART NUMBER | PACKAGE | PACK / Qty | MARK   |
|-------------|---------|------------|--|
| TF2117-TAU  | SOIC-8  | Tube / 100 |  YYWW<br>TF2117<br>Lot ID |
| TF2117-TAH  |         | T&R / 2500 |  |
| TF2117-3AS  | PDIP-8  | Tube / 50  |  YYWW<br>TF2117<br>Lot ID |
| TF2118-TAU  | SOIC-8  | Tube / 100 |  YYWW<br>TF2118<br>Lot ID |
| TF2118-TAH  |         | T&R / 2500 |  |
| TF2118-3AS  | PDIP-8  | Tube / 50  |  YYWW<br>TF2118<br>Lot ID |

## Pin Diagrams



**Top View: PDIP-8, SOIC-8**

**TF2117**



**Top View: PDIP-8, SOIC-8**

**TF2118**

## Pin Descriptions

| PIN NAME       | PIN DESCRIPTION  |
|----------------|--|
| VCC            | Logic and gate drive supply  |
| IN             | TF2117 Logic input for gate driver output (HO), in phase with HO     |
| IN*            | TF2118 Logic input for gate driver output (HO), out of phase with HO |
| COM            | Logic ground   |
| NC             | No Connect   |
| V <sub>S</sub> | High-side floating supply return                                     |
| HO             | High-side gate drive output  |
| V <sub>B</sub> | High-side floating supply  |

## Revision History

| Rev. | Change                  | Owner     | Date       |
|------|-------------------------|-----------|------------|
| 1.0  | First release datasheet | D. Walton | 12/11/2022 |
|      |                         |           |            |

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