



UNI-SEMICONDUCTOR CO., LTD
宇力半导体有限公司



U3115S-6S Data Sheet

V 3.1

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Half-bridge of power MOSFET/IGBT Driver

General Description

The U3115S/U3116S Fully operated to +300V is high voltage, high speed power MOSFET and IGBT driver with dependent high and low side referenced output channels.

The logic input is compatible with standard CMOS or LSTTL output, down to 3.3V logic.

The output drivers feature a high pulse current buffer stage designed for minimum driver cross-conduction. The floating channel can be used to drive an N-channel power MOSFET or IGBT in the high side configuration which operates up to 300 volts.

Product Summary

V_{OFFSET}	300V max
$I_{O+/-}$	1.2 A / 1.5A
$V_{CCOn/off}$ (typ.)	10V & 8V
$t_{on/off}$ (typ.)	450 & 190ns
Deadtime (typ.)	250 ns
Work Tem	-40 ~150 °C

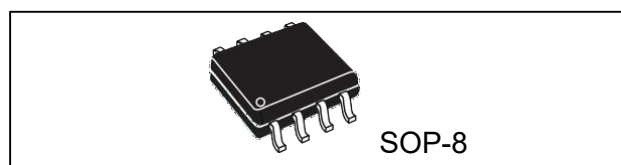
Key Features

- Floating channel designed for bootstrap operation
- Fully operational to +300V
- Tolerant to negative transient voltage dV/dt immune
- Gate drive supply range from 9 to 20V
- Undervoltage lockout
- 3.3V, 5V and 15V input logic compatible
- Cross-conduction prevention logic
- Matched propagation delay for both channels

Applications

- Home appliances
- Industrial applications and drives
- Motor drivers
- DC, AC, PMDC and PMAC motors
- Induction heating
- HVAC

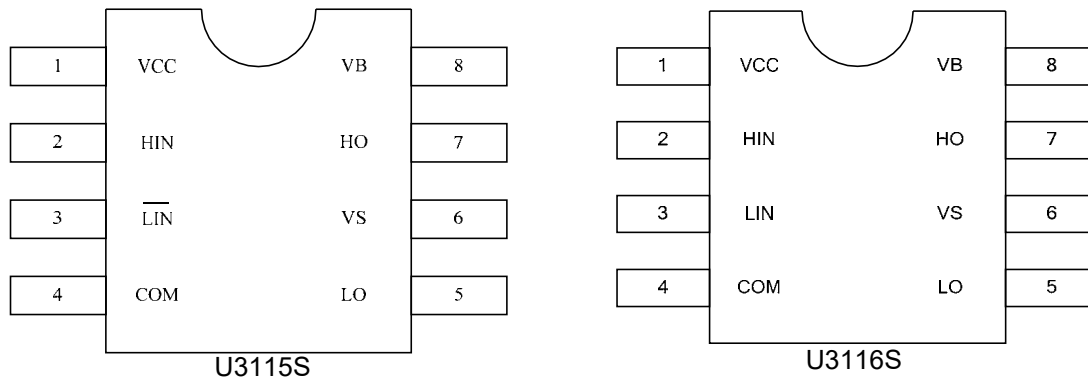
Packages



Products Information

Base Part Number	Package Type	Standard OUT		V_{OFFSET}	Logic Control
		IO+	IO-		
U3115S	SOP8	1.2A	1.5A	300V	HIN & \overline{LIN}
U3116S	SOP8	1.2A	1.5A	300V	HIN & LIN

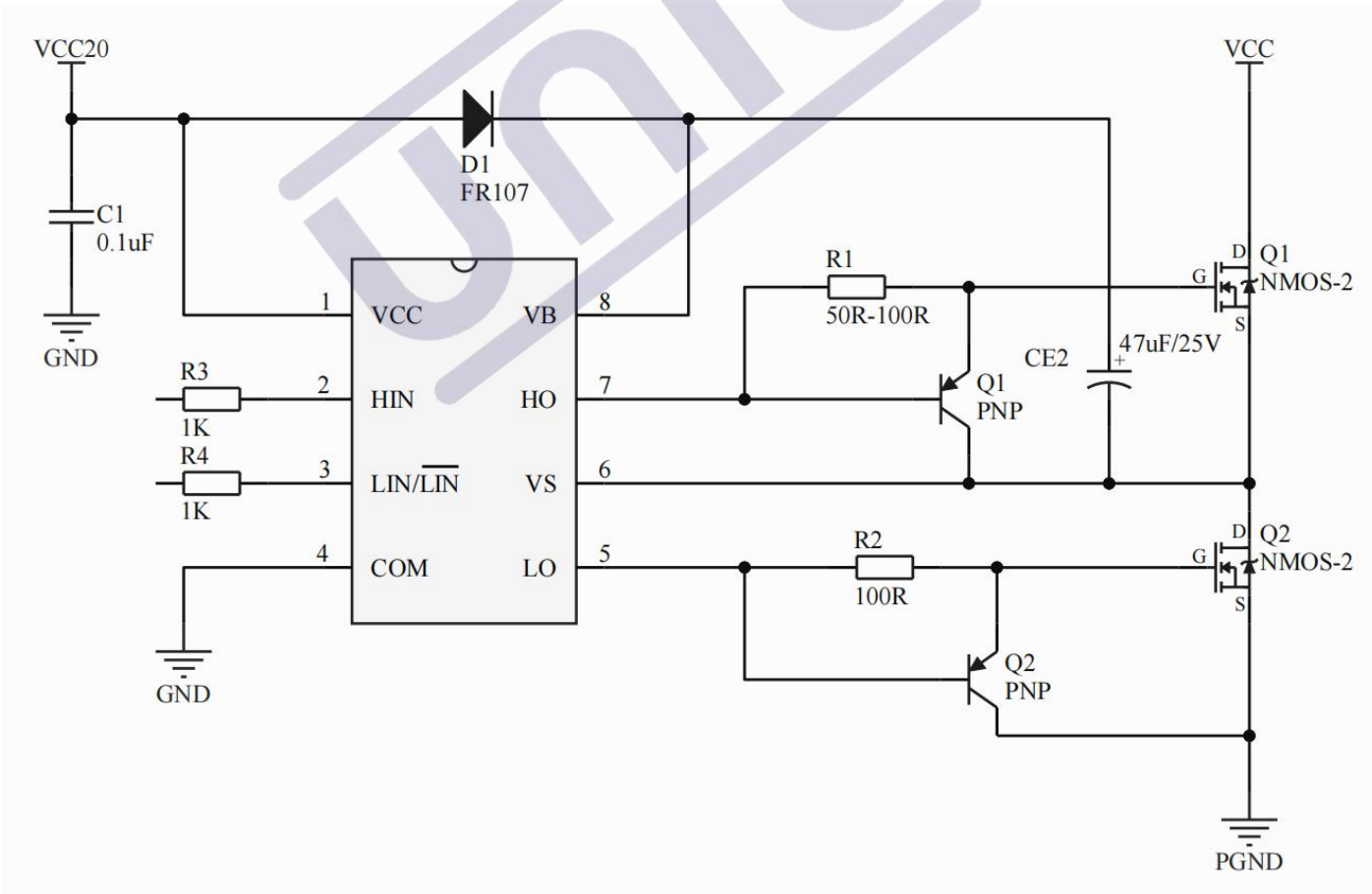
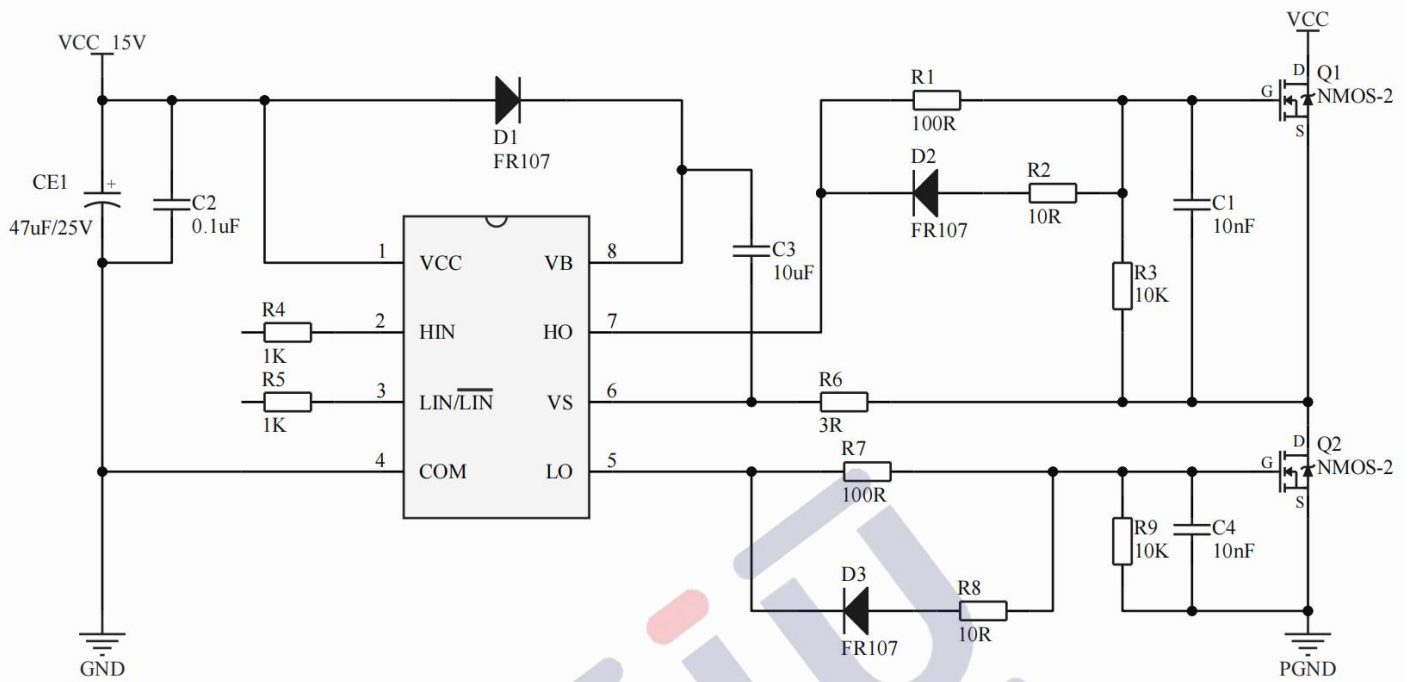
Pin Assignments



Pin Function

Number	Symbol	Type	Description
1	VCC	P	Low side and logic fixed supply
2	HIN	I	High-side driver logic input (active high)
3	LIN	I	Low side-driver logic input (active high)
	$\overline{\text{LIN}}$	I	Low side-driver logic input (active low)
4	COM	P	Low side return
5	LO	O	Low side gate drive output
6	VS	P	High side floating supply return
7	HO	O	High side gate drive output
8	VB	P	High side floating supply

Typical Connection



Much Big POWER application

1.版本记录

DATE	REV.	DESCRIPTION
2018/04/19	1.0	First Release
2019/05/21	2.0	Change the package
2021/10/18	3.0	Layout adjustment
2022/11/07	3.1	Change the Logo

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