



ZHEJIANG UNIÜ-NE Technology CO., LTD

浙江宇力微新能源科技有限公司



U5115S-6S Data Sheet

V 3.1

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High Current IO+/- 1.0/1.2A HALF-BRIDGE DRIVER

General Description

The U5115S/U5116S Fully operated to +280V 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 280 volts.

Product Summary

V _{OFFSET}	280V max
I _{O+/-}	1.0 A / 1.2A
V _{CCon/off (typ.)}	8V & 7V
t _{on/off (typ.)}	600 & 280ns
Deadtime (typ.)	280 ns
Work Tem	-40 ~150 °C

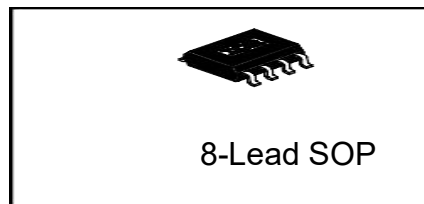
Key Features

- Integrated DBOOT(FR107)
- Floating channel designed for bootstrap operation
- Fully operational to +280V
- Tolerant to negative transient voltage dV/dt immune
- Gate drive supply range from 7 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

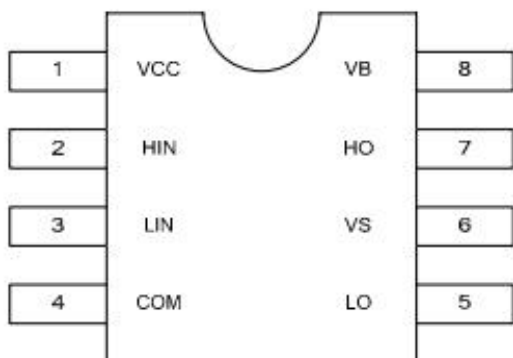
Package



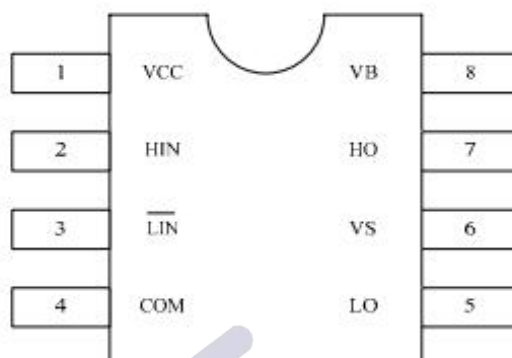
Products Information

Base Part Number	Package Type	Standard OUT		V _{OFFSET}	Logic Control
		IO+	IO-		
U5115S	SOP8	1.0A	1.2A	280V	HIN & $\overline{\text{LIN}}$
U5116S	SOP8	1.0A	1.2A	280V	HIN & LIN

Pin Assignments



U5116S



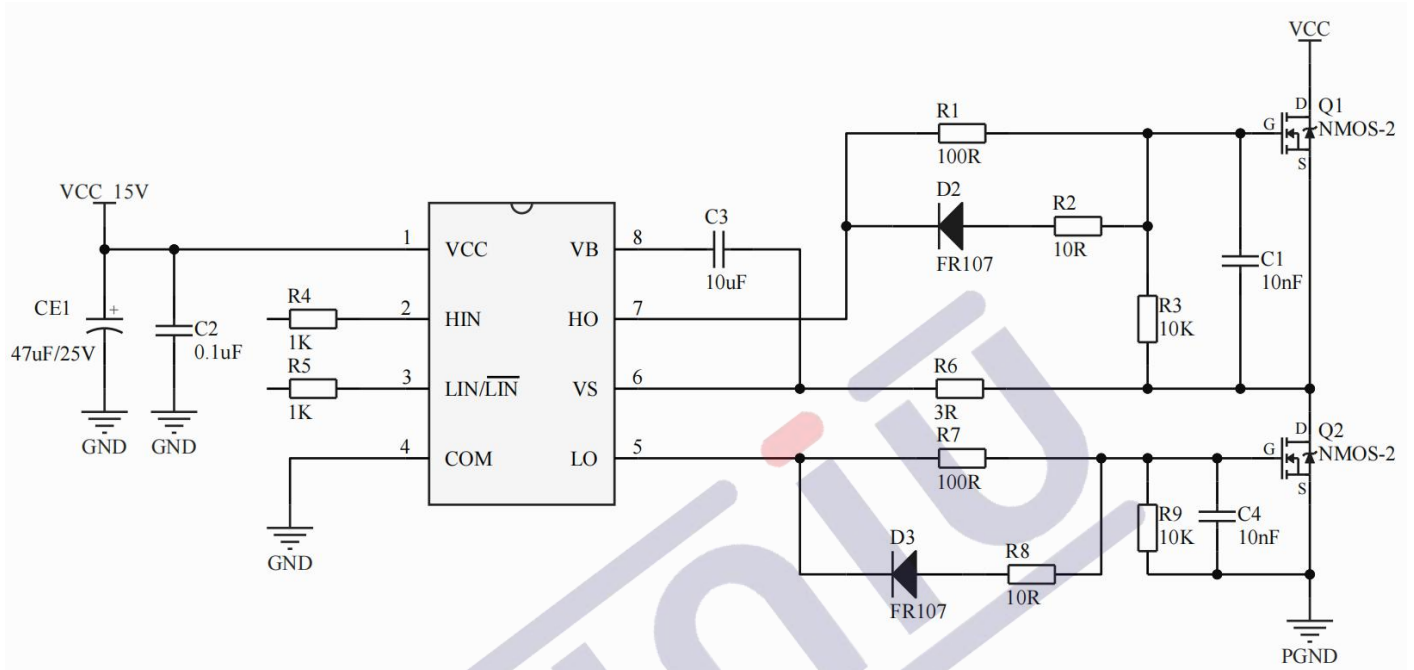
U5115S

Pin Function

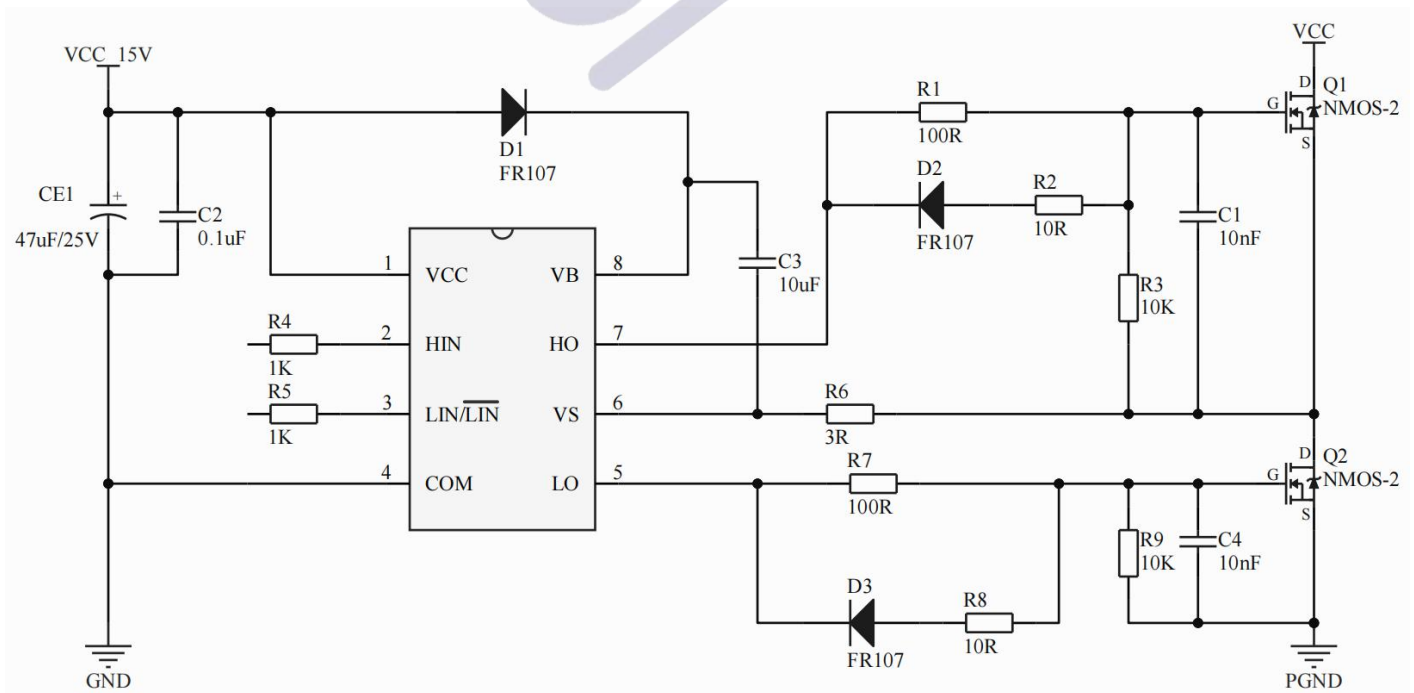
Number	Symbol	Type	Description
1	VCC	P	Low side and logic fixed supply
2	HIN	I	Logic input for high side gate driver outputs (HO), in phase
3	LIN	I	Logic input for low side gate driver outputs (LO), in phase
	$\overline{\text{LIN}}$	I	Logic input for low side gate driver outputs (LO), out of phase
4	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

NO-DBOOT(FR107) Application



DBOOT(FR107) Application



1.版本记录

DATE	REV.	DESCRIPTION
2018/04/19	1.0	First Release
2019/05/11	2.0	Change the package
2021/10/18	3.0	Layout adjustment
2022/06/11	3.1	Change the header

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