



Shaoxing Yuli Semiconductor CO., LTD

绍兴宇力半导体有限公司



## U3215C-6C Data Sheet

V 4.0

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# High Current IO+/- 2.0/2.5A HALF-BRIDGE DRIVER

## General Description

The U3215C/U3216C Fully operated to +600V 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 600 volts.

## Product Summary

V <sub>OFFSET</sub>	600V max
IO+/-	2.0 A / 2.5A
VCC	5V - 20V
ton/off (typ.)	320 & 200ns
Deadtime (typ.)	120 ns
Work Tem	-40 ~125 °C

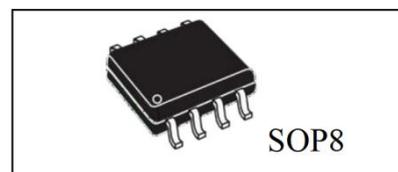
## Key Features

- Floating channel designed for bootstrap operation
- Fully operational to +600V
- Tolerant to negative transient voltage dV/dt immune
- Gate drive supply range from 5 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

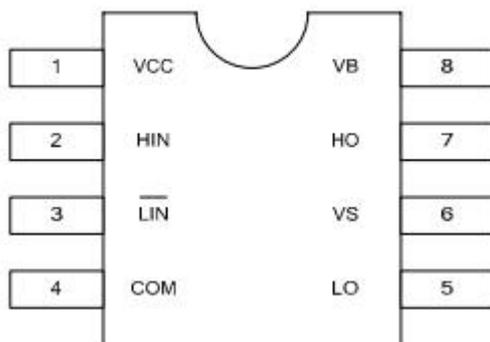
## Packages



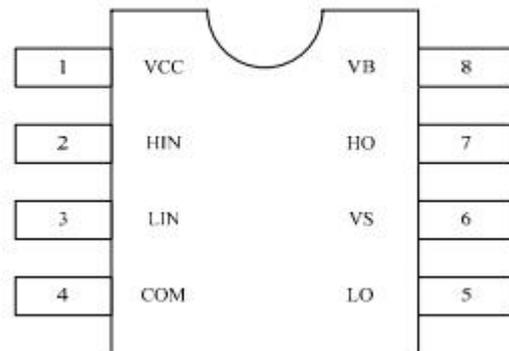
## Products Information

Base Part Number	Package Type	Standard OUT		V <sub>OFFSET</sub>	Logic Control
		IO+	IO-		
U3215C	SOP8	2.0A	2.5A	600V	HIN & $\overline{\text{LIN}}$
U3216C	SOP8	2.0A	2.5A	600V	HIN & LIN

## Pin Assignments



U3215C

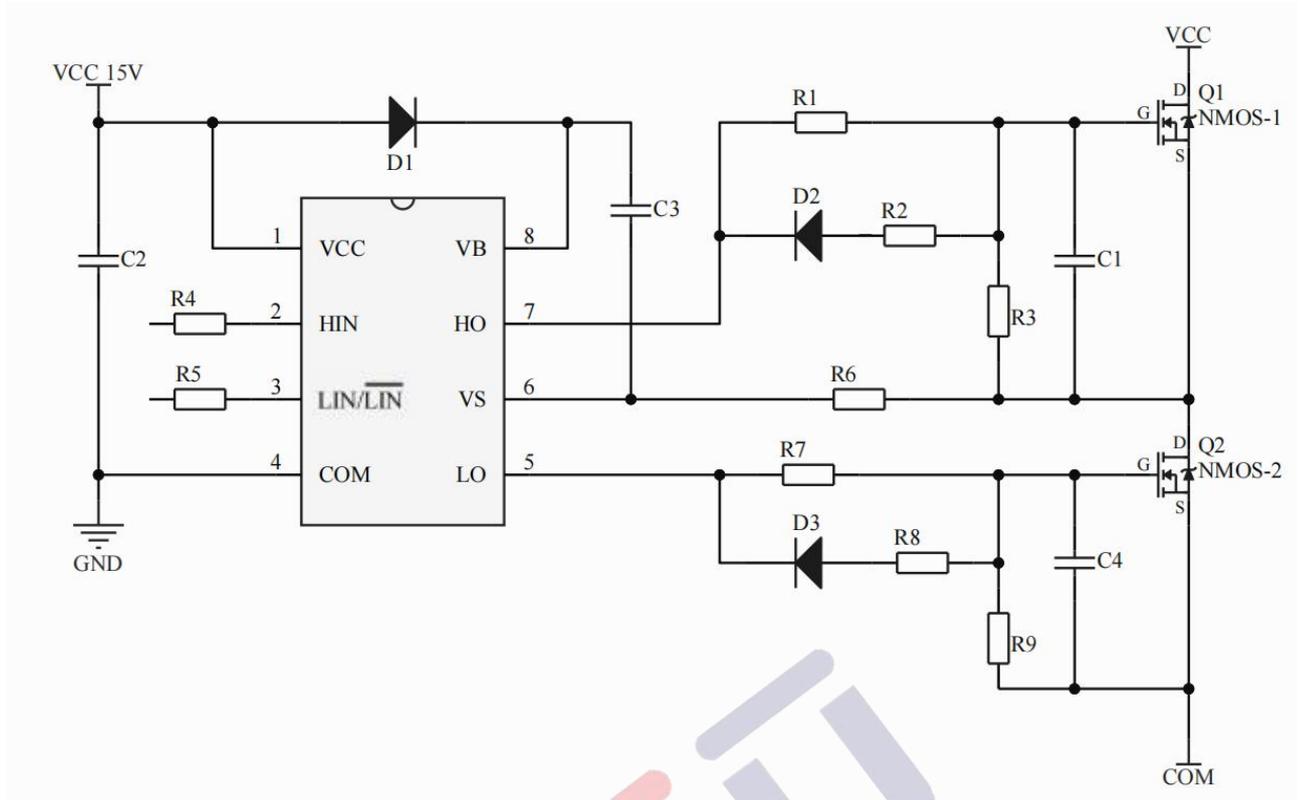


U3216C

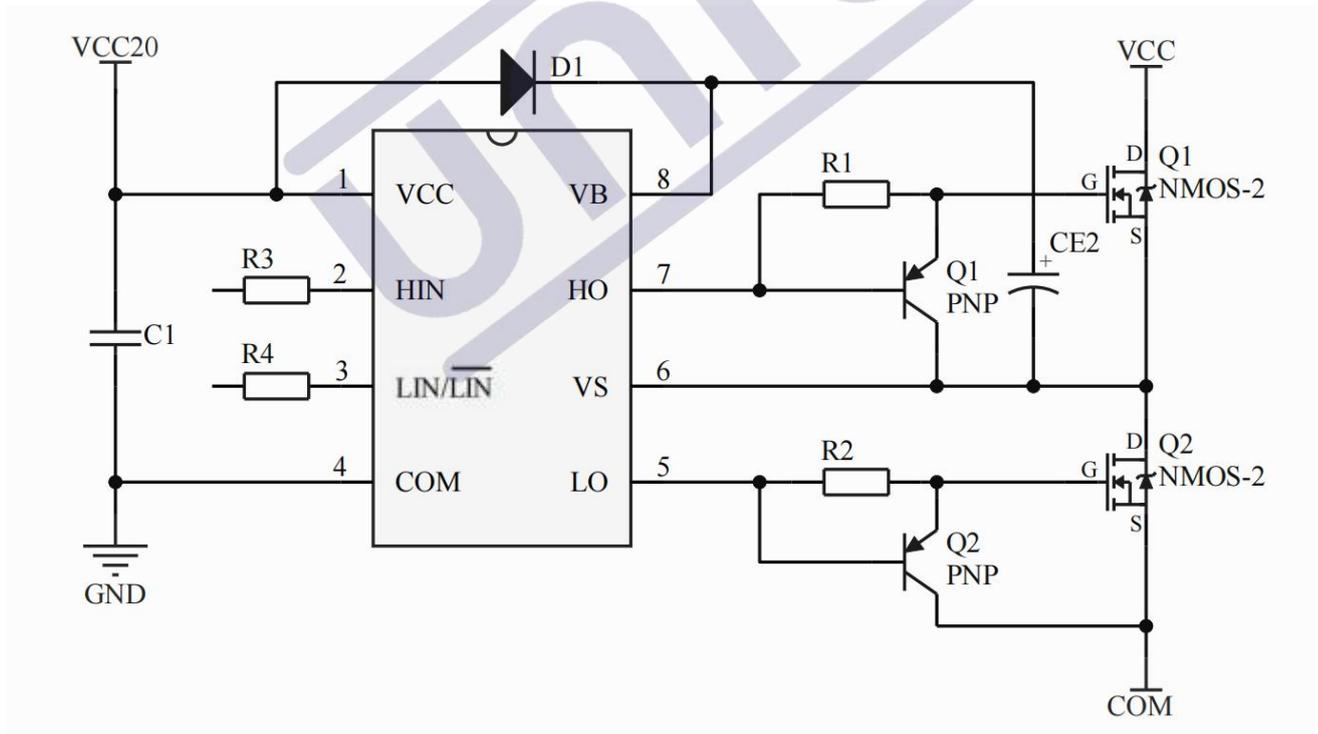
## Pin Function

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



Typical application



Much Big POWER application

Note: The above circuits and parameters are for reference only. The actual application circuit should be designed with the measured results in setting the paramete.

## 1、Version Record

Date	Rev.	Description
2018/04/19	1.0	First Release
2019/05/21	2.0	Change Encapsulation
2021/10/18	3.0	Layout Adjustment
2023/08/26	4.0	Optimal Circuit

## 2、Contact

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