



ZHEJIANG UNIÜ-NE Technology CO., LTD

浙江宇力微新能源科技有限公司



U2106C Data Sheet

V 1.1

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High Current IO+/- 0.4/0.6A HALF-BRIDGE DRIVER

General Description

The U2106C 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 _{OFFSET}	600V max
I _{O+/-}	0.4A / 0.6A
V _{OUT}	4.8V ~ 20V
t _{on/off} (typ.)	420/220ns
Deadtime (typ.)	220ns
Work Tem	-40 ~150 °C

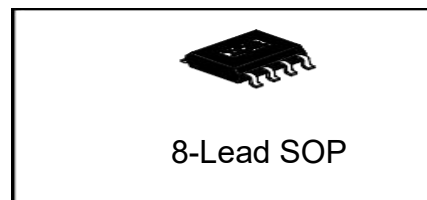
Key Features

- Integrated bootstrap Diode⁽¹⁾
- Floating channel designed for bootstrap operation
- Fully operational to +600V
- Tolerant to negative transient voltage dV/dt immune
- Gate drive supply range from 4.8 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 Converter, PMDC and PMAC motors
- Induction heating
- HVAC

Packages

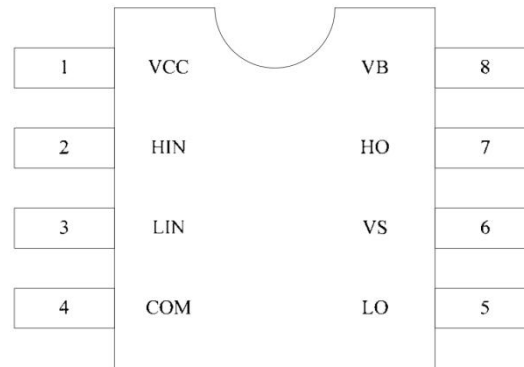


Product information

Base Part Number	Package Type	Standard OUT		V _{OFFSET}	Logic Control
		IO+	IO-		
U2106C	SOP8	0.4A	0.6A	600V	HIN & LIN

Note: (1) When using internal diode bootstrap power supply, please match the capacitor and MOS, and fully test and verify

Pin Assignments

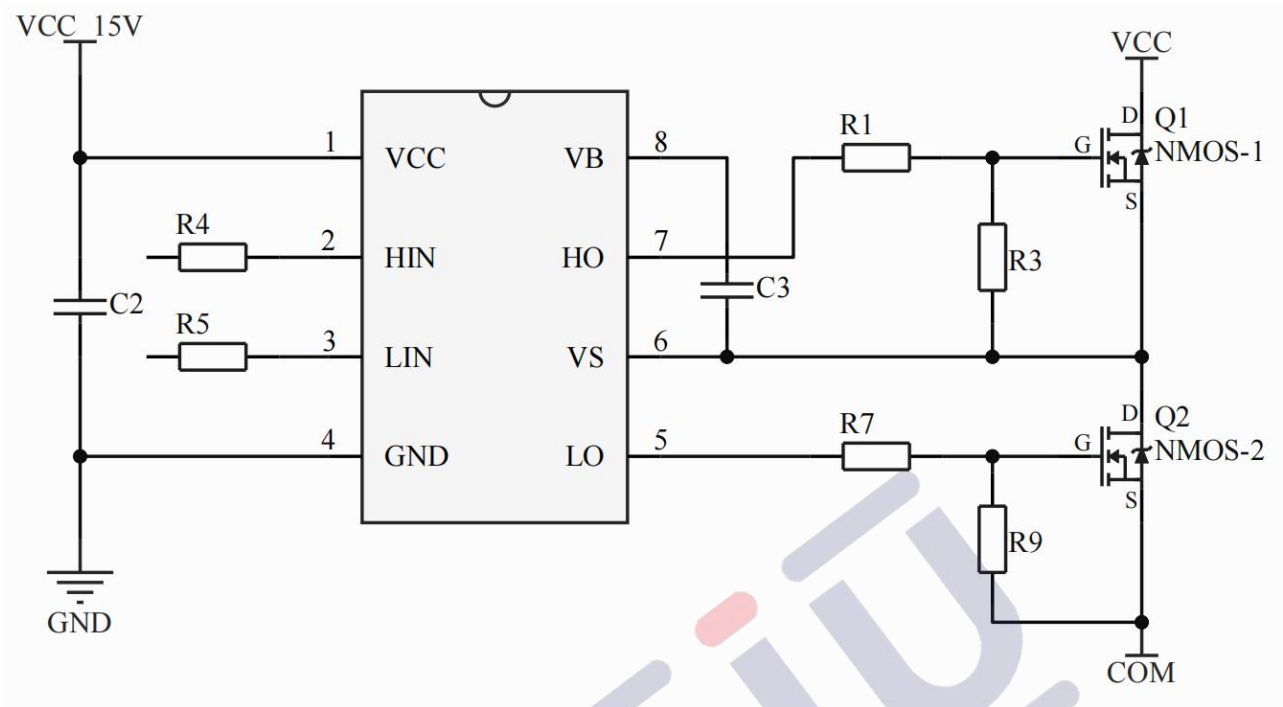


U2106C

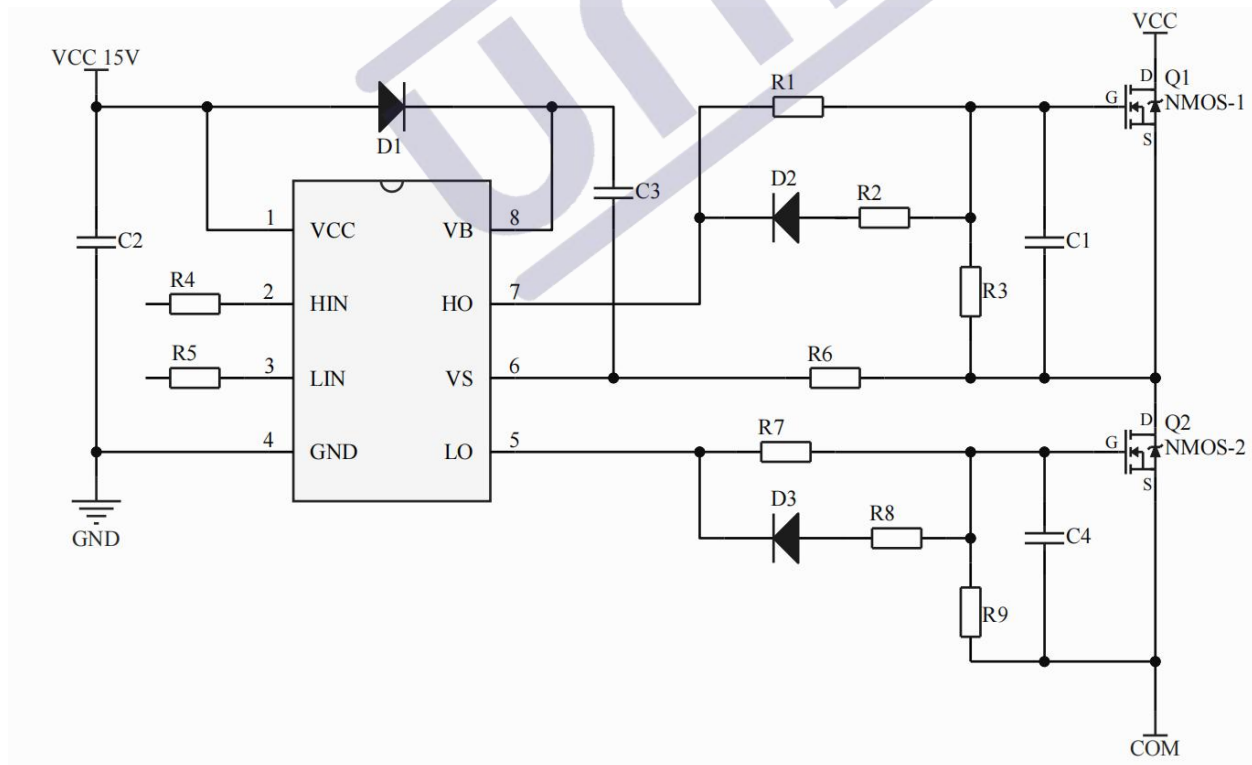
Pin Function

Number	Symbol	Description
1	VCC	Low side and logic fixed supply
2	HIN	Logic input for high side gate driver outputs (HO), in phase
3	LIN	Logic input for low side gate driver outputs (LO), in phase
4	COM	Low side return
5	LO	Low side gate drive output
6	VS	High side floating supply return
7	HO	High side gate drive output
8	VB	High side floating supply

Typical Connection



Air duct circuit application



Typical 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 parameters.

1、版本记录

DATE	REV.	DESCRIPTION
2023/6/02	1.0	拆分规范书U2103和U2106
2023/10/9	1.1	更新应用原理图及应用参数

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