



Shaoxing Yuli Semiconductor CO., LTD

绍兴宇力半导体有限公司



2181/2183 Data Sheet

V 1.1

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High Current IO+/- 2.2/2.7A HALF-BRIDGE DRIVER

General Description

The 2181/2183 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
IO+/-	2.2A /2.7A
VCC	9V & 4.5V ~ 21V
ton/off (typ.)	200 & 154 ns
Deadtime (typ.)	50&420 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 9V (4.5V) to 21V
- 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

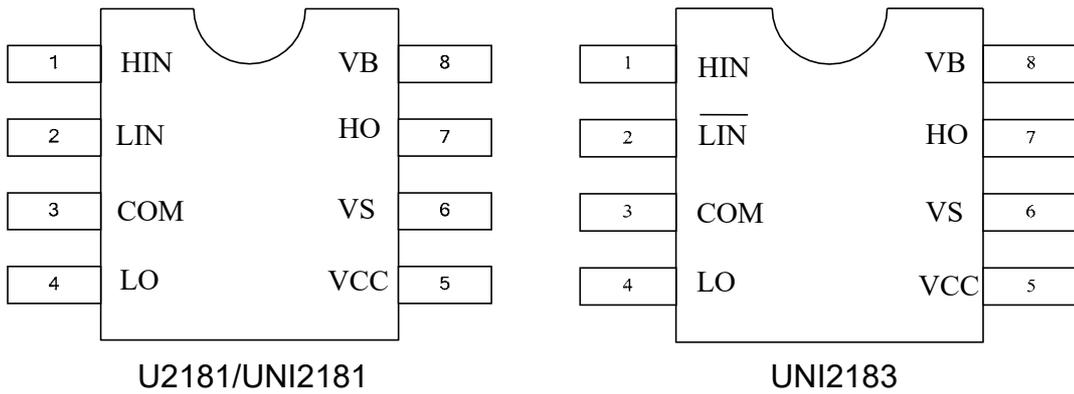
Packages



Products Information

Base Part Number	Package Type	Standard OUT		Logic Control	Cross-conduction prevention logic	Undervoltage lockout	VCC
		IO+	IO-				
UNI2181	SOP8	2.2A	2.7A	HIN & LIN	N	Y	9V~21V
U2181	SOP8	2.2A	2.7A	HIN & LIN	Y	N	4.5V~21V
UNI2183	SOP8	2.2A	2.7A	HIN & $\overline{\text{LIN}}$	Y	Y	9V~21V

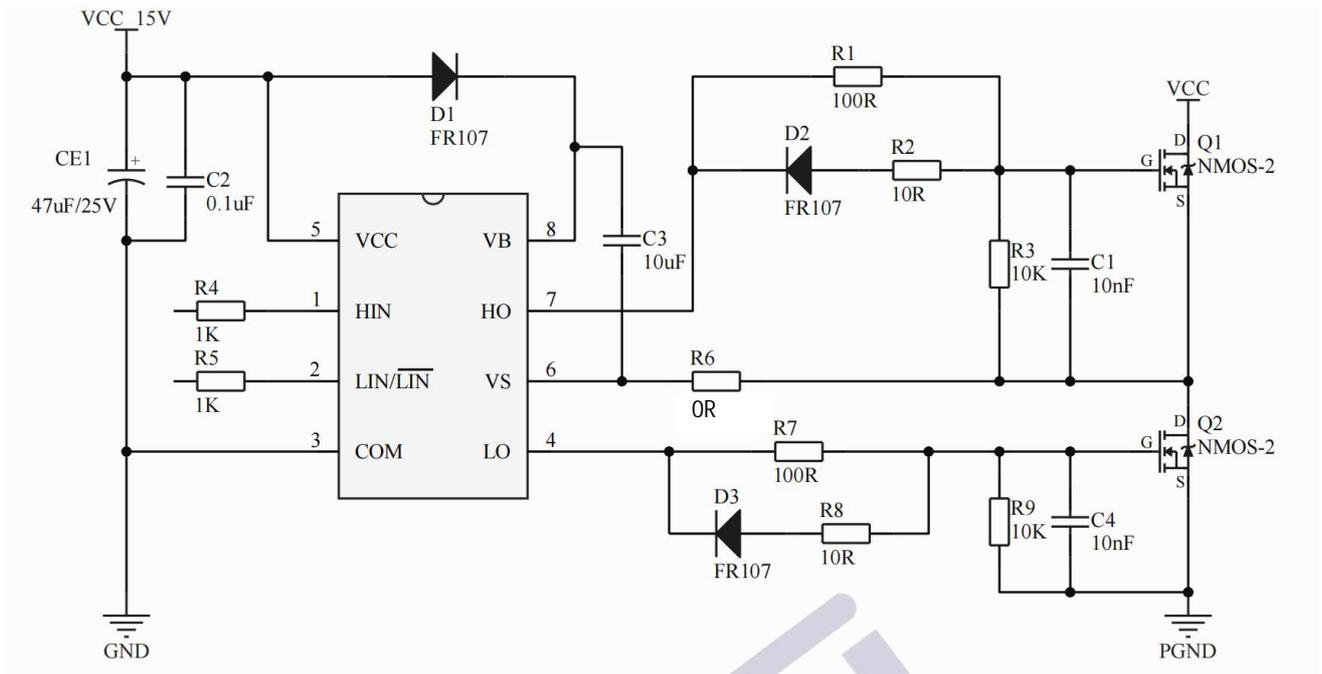
Pin Assignments



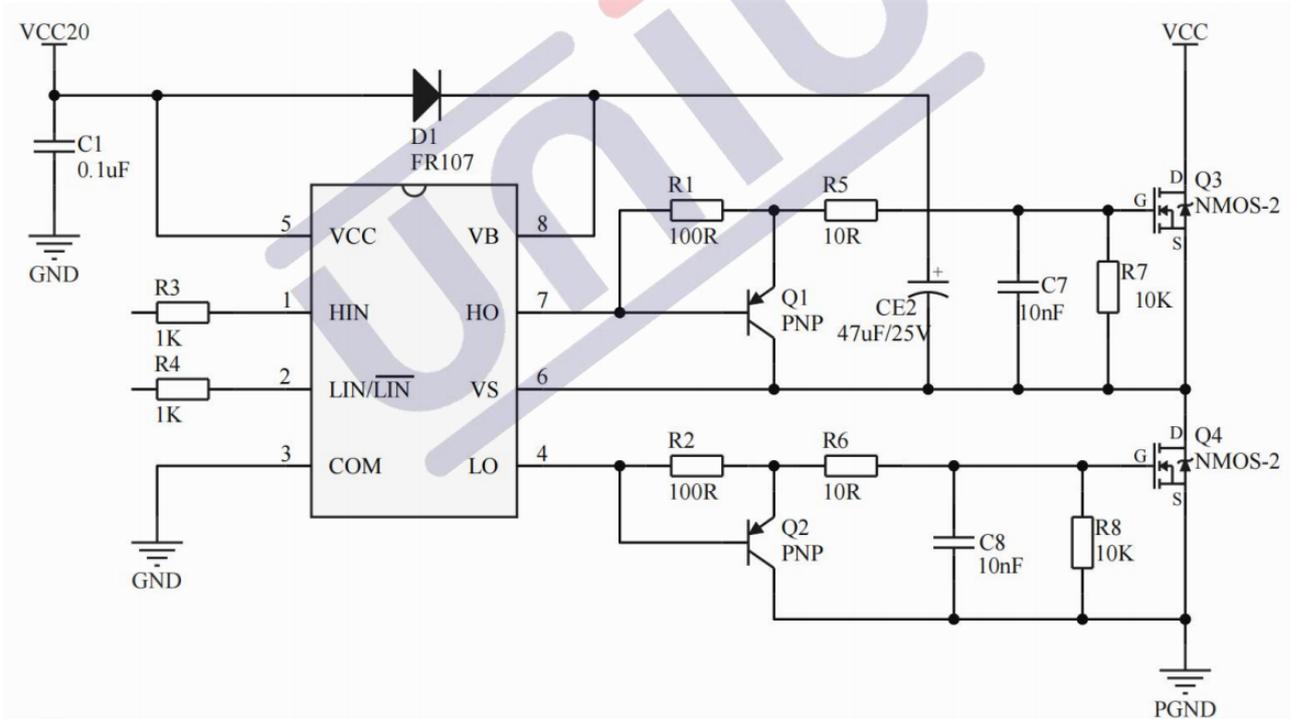
Pin Function

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

Typical Connection



APP1:Typical application



APP2:Much Big POWER application

NOTE:APP1 R6 By default, 0R.when operating under high-pressure conditions or optimizing against negative pressure, this resistor can be increased. The recommended value range is 1 to 3R.

1、Version Record

Date	Rev.	Description
2018/04/19	1.0	First Release
2021/11/04	1.1	Layout Adjustment

2、Contact

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