ZHEJIANG UNIU-NE Technology CO.,LTD

浙江宇力微新能源科技有限公司

U2181C Data Sheet

V 2.0

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

General Description

The U2181C 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 op-erates up to 600 volts.

Product Summary

V_{OFFSET}	600V max
I_O+/-	2.0 A / 2.5A
VCC	5V - 20V
$t_{on/off}$ (typ.)	200 & 180ns
Work Tem	-40 ~150 °C

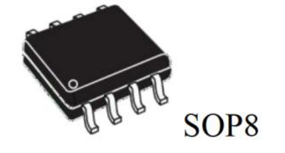
Key Features

- 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
- Matched propagation delay for both channels

Applications

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

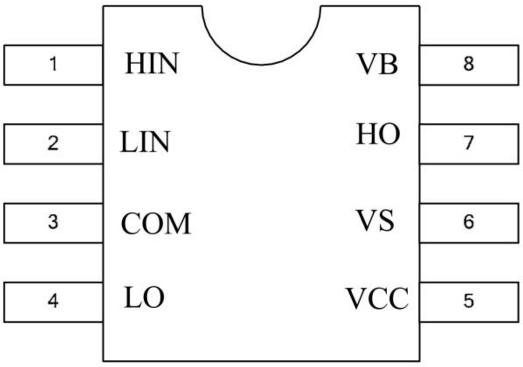
Packages



Products Information

Base Part Number	Package Type	Standard OUT		V_{OFFSET}	Logic Control
		IO+	IO-		
U2181C	SOP8	2.0A	2.5A	600V	HIN & LIN

Pin Assignments

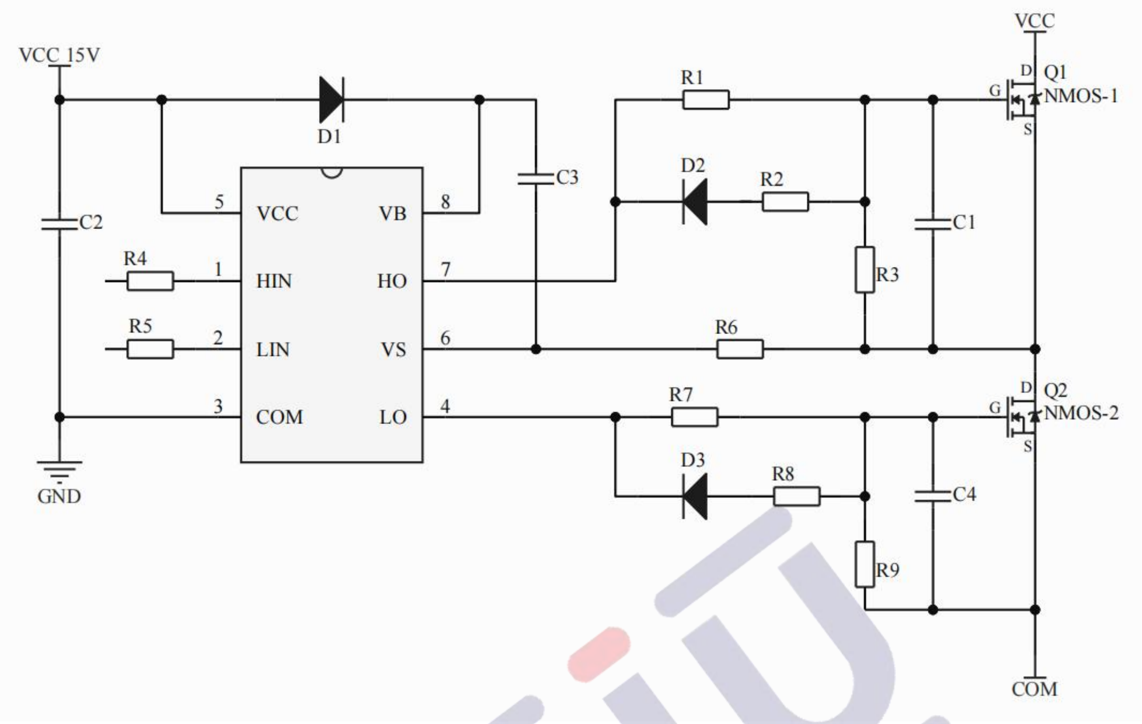


U2181C

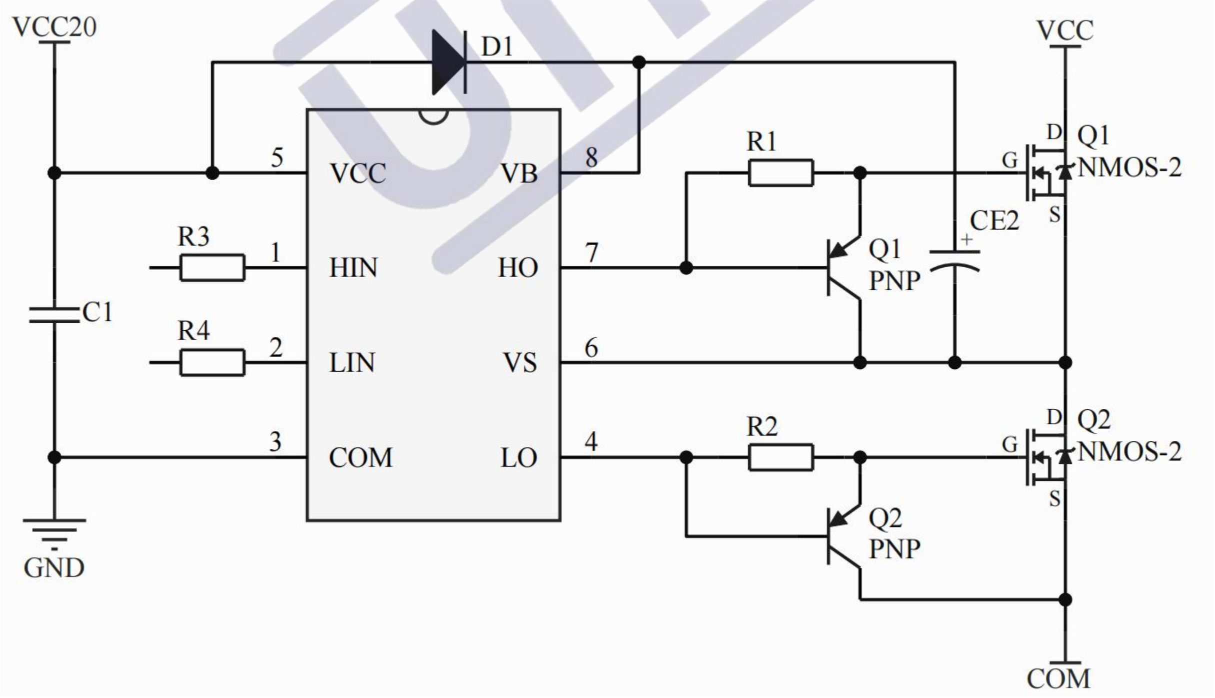
Pin Function

Number	Symbol	Type	Description
1	HIN	I	Logic input for high side gate driver outputs (HO), in phase
2	LIN	I	Logic input for low side gate driver outputs (LO), in phase
3	COM	P	Low side return
4	LO	O	Low side gate drive output
5	VCC	P	Low side and logic fixed supply
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、版本记录

DATE	REV.	DESCRIPTION
2018/04/19	1.0	首次发布
2021/11/04	1.1	布局调整
2023/06/18	2.0	电路调整

2、免责声明

浙江宇力微新能源科技有限公司保留对本文档的更改和解释权力，不另行通知!

客户在下单前应获取我司最新版本资料，并验证相关信息是否最新和完整。量产方案需使用方自行验证并自担所有批量风险责任。未经我司授权，该文件不得私自复制和修改。

产品不断提升，以追求高品质、稳定性强、可靠性高、环保、节能、高效为目标，我司将竭诚为客户提供性价比高的系统开发方案、技术支持等更优秀的服务。

3、联系我们

浙江宇力微新能源科技有限公司
总部地址：绍兴市越城区斗门街道袍渎路25号中节能科创园45幢4/5楼
电话：0575-85087896（研发部）
传真：0575-88125157
E-mail:htw@uni-semic.com

无锡地址：无锡市锡山区先锋中路 6 号中国电子（无锡）数字芯城 1#综合楼 503室
电话:0510-85297939
E-mail:zh@uni-semic.com

深圳地址：深圳市宝安区西乡街道南昌社区宝源路泳辉国际商务大厦410
电话：0755-84510976
E-mail:htw@uni-semic.com