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.

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

Product Summary

V_{OFFSET}	600V max
$I_{O+/-}$	2.2A /2.7A
VCC	9V &4.5V ~ 21V
$t_{on/off}$ (typ.)	200 &154 ns
Deadtime (typ.)	50&420 ns
Work Tem	-40 ~150 ℃

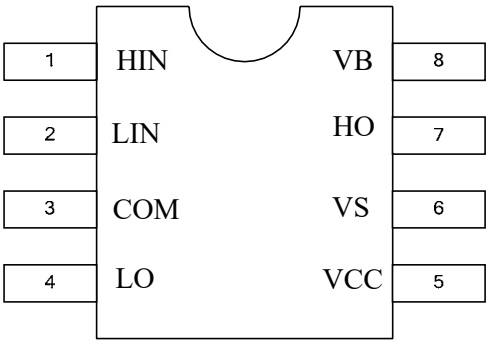
Packages

8-Lead SOP

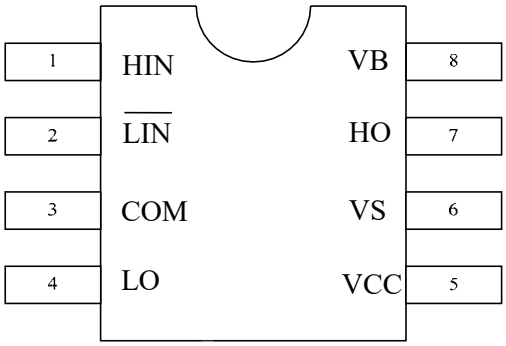
Products Information

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



U2181/UNI2181



UNI2183

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