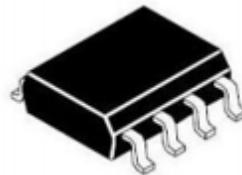# DESCRIPTION

The PT5607 is a high speed high voltage (600V) driver to control power devices like MOS-transistors or IGBTs in half bridge systems 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 device includes an under-voltage detection unit with hysteresis characteristic and prevents power devices against large amount of conduction loss, when voltage margin of gate is not high enough. 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. It is pin and input polarity compatible to IR2101.

APPLICATIONS

- Appliance motor drives - air conditioners, washing machines, refrigerator, dish washer, Fans
- General purpose inverters
- Electric bike, Electric tools
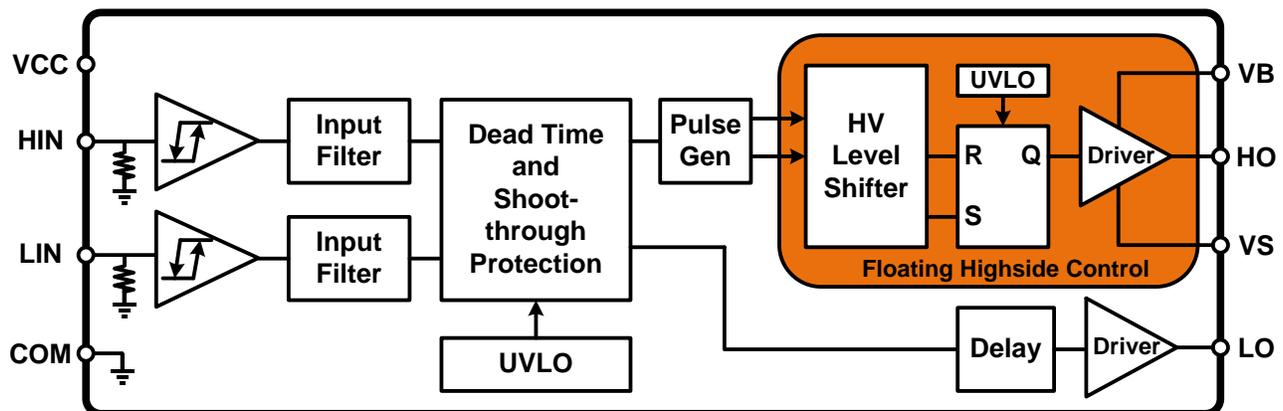- Lighting, switching power supply

FEATURES

- Drives two IGBT/MOSFET power devices
- high side channel fully operate up to +600V
- Gate drive supplies from 10V to 20 V per channel
- Under-voltage lockout
- Advanced input filter
- Built-in dead-time protection: 0.5us
- IO+/-: 290/620mA, large sourcing current to bypass miller effect
- Shoot-through (cross-conduction) protection
- 3.3V/5V/15V input logic compatible
- Matched propagation delays for all channels
- Matched dead time
- High side output in phase with HIN input
- Low side output in phase with LIN input
- Tolerant to negative transient voltage, immunity of dv/dt up to 50V/ns
- Low di/dt gate drive for better noised immunity
- -40°C to 125°C operating range
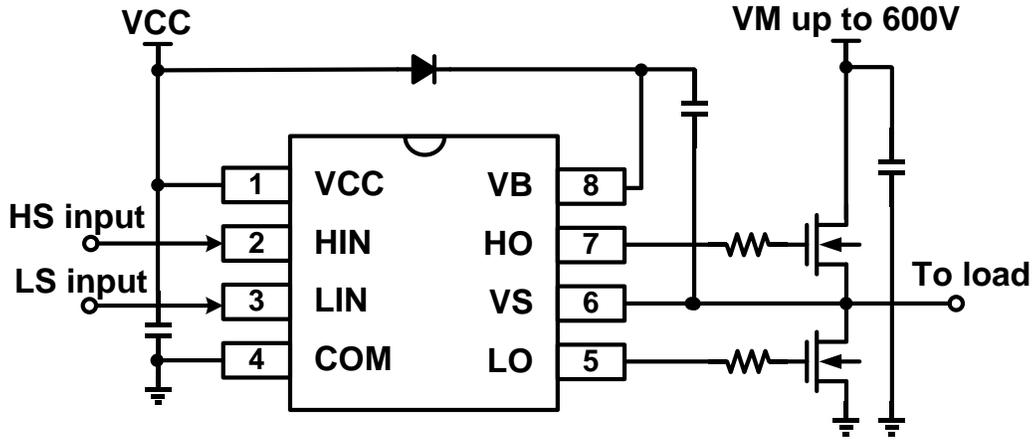- SOP8L package available
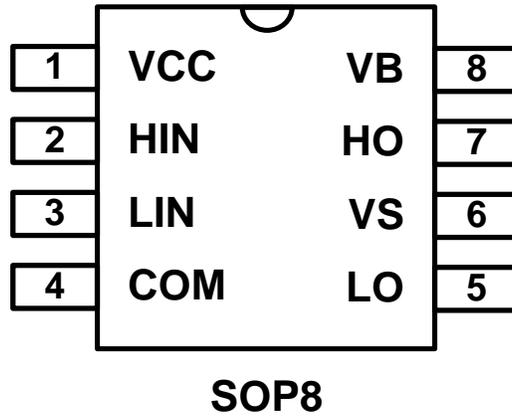- Lead-free

8-Lead SOIC

BLOCK DIAGRAM

TYPICAL APPLICATION

ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT5607	8-Pin, SOP, 150 MIL	PT5607-S

PIN CONFIGURATION

1	VCC	VB	8	
2	HIN	HO	7	
3	LIN	VS	6	
4	COM	LO	5	

SOP8

PIN DESCRIPTION

Pin Name	Description	Pin No.
VCC	Low-side supply voltage	1
HIN	Logic input for high-side gate driver output(HO), in phase	2
LIN	Logic input for low-side gate driver output(LO), in phase	3
COM	Low-side gate drive return	4
LO	Low-side driver output	5
VS	High voltage floating supply return	6
HO	High-side driver output	7
VB	High-side gate drive floating supply	8

IMPORTANT NOTICE

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