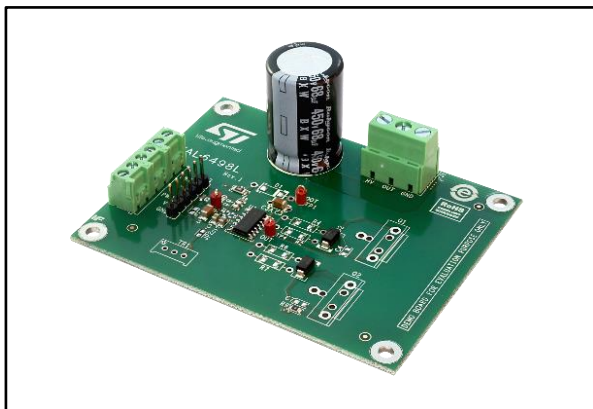


## Evaluation board for the L6498L gate driver

Data brief



### Features

- Driver current capability: 2 A source, 2.5 A sink
- Integrated bootstrap diode
- Interlocking function
- 3.3 V, 5 V TTL/CMOS inputs with hysteresis
- UVLO on both high-side and low-side sections
- dV/dt immunity: 50 V/ns in full temperature range
- Compact and simplified layout
- Bill of material reduction
- Flexible, easy and fast design

### Description

The L6498L is a high voltage device developed with the BCD6 “OFF-LINE” technology. It is a single-chip half-bridge gate driver for N-channel power MOSFETs or IGBTs.

Both device outputs can sink 2.5 A and source 2 A, making the L6498 particularly suited for medium and high capacity power MOSFETs/IGBTs.

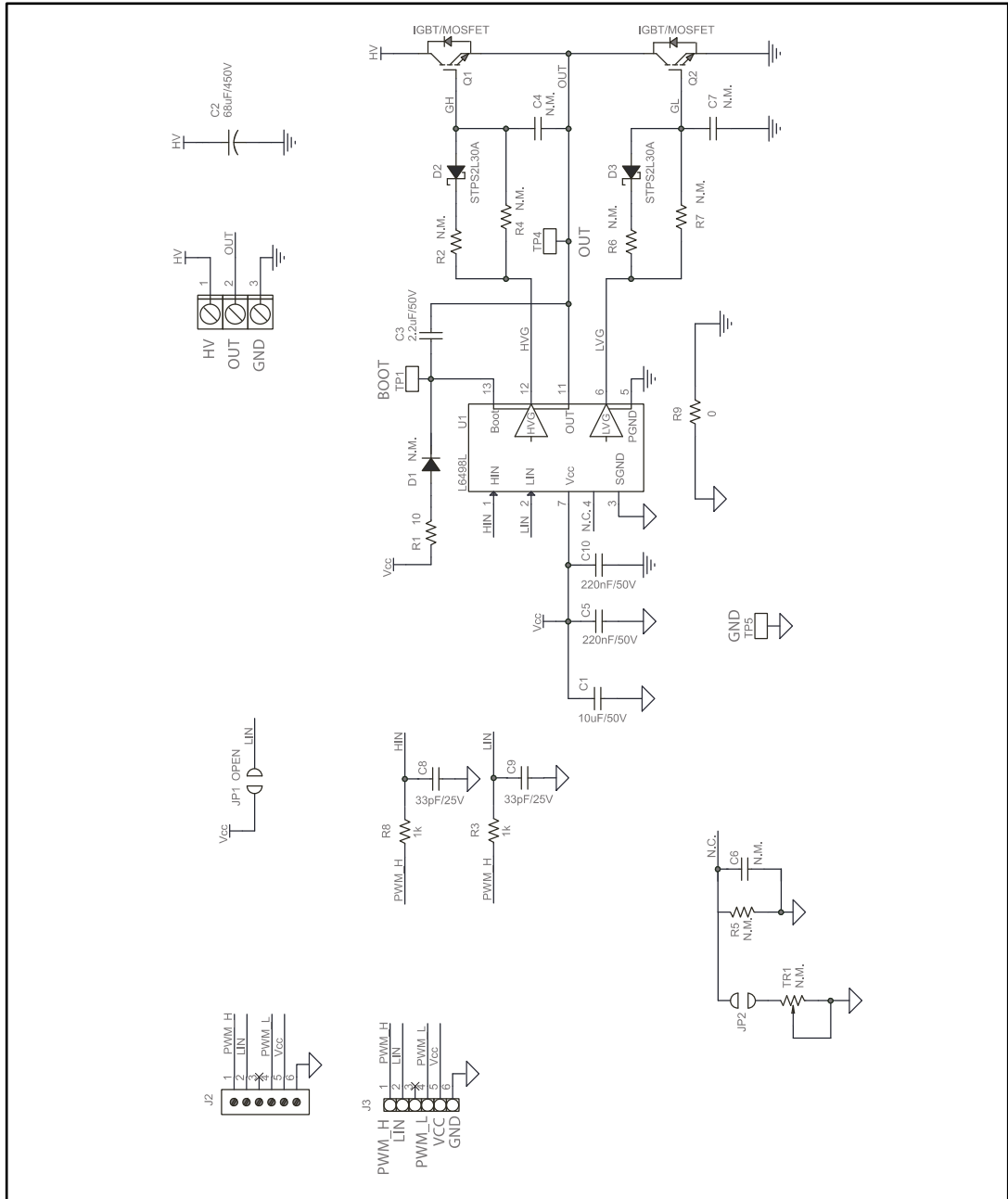
The integrated bootstrap diode as well as all of the integrated features of this driver make the application PCB design simpler and more compact, and help to reduce the overall bill of material.

The EVAL6498L board allows all the L6498L features to be evaluated while a power switch in TO-220 or TO-247 package is driven.

The board allows the values of relevant external components to be selected and modified so to ease the driver performance evaluation under different applicative conditions and fine pre-tuning of final application components.

# 1 Schematic diagram

Figure 1: EVAL6498L circuit schematic



## 2 Bill of material

Table 1: EVAL6498L bill of materials

Part reference	Part value	Part description
C1	10 $\mu$ F / 50 V	Ceramic capacitor, SMT 1206
C2	68 $\mu$ F / 450 V	Electrolytic capacitor, 68 $\mu$ F 450 V 20% radial P7.5 mm 18x25
C3	2.2 $\mu$ F / 50 V	Ceramic capacitor, SMT 1206 or T.H.
C4,C7	N.M.	Ceramic capacitor, SMT 0805
C5,C10	220 nF / 50 V	Ceramic capacitor, SMT 0805
C6	N.M.	Ceramic capacitor, SMT 0603
C8,C9	33 pF / 25 V	Ceramic capacitor, SMT 0603
D1	N.M.	Diode DO-41 or SMA
D2,D3	STPS2L30A	Diode Schottky 30 V, 2 A, SMA
JP1, JP2	Jumper - open	SMT jumper
J1	Phoenix contact 1985991 or similar	Conn. term. block T.H. 3 POS 5.08 mm
J2	2 x Phoenix contact 1984950 or or similar	Conn. term. block T.H. 6 POS 3.5 mm
J3	FCI 68000-406HLF or similar	Conn. header 6 POS 2.54 mm STR TIN
Q1,Q2	To be selected by customer	IGBT/MOSFET, TO-220 or TO-247
R1	10 $\Omega$	Resistor, SMT 1206
R2,R4, R6,R7	To be selected by customer	Resistor, SMT 1206 or T.H.
R3, R8	1 k $\Omega$	Resistor, SMT 0603
R5	N.M.	Resistor, SMT 0603
R9	0 $\Omega$	Resistor, SMT 0805
TP1,TP4,TP5	RS 200-207 or similar	PCB test terminal 1 mm
TR1	N.M.	Trimmer, 0.5 W, T.H.
U1	L6498LD	High voltage high and low-side gate driver, SO-14

### 3 PCB layout

Figure 2: EVAL6498L – layout (top layer )

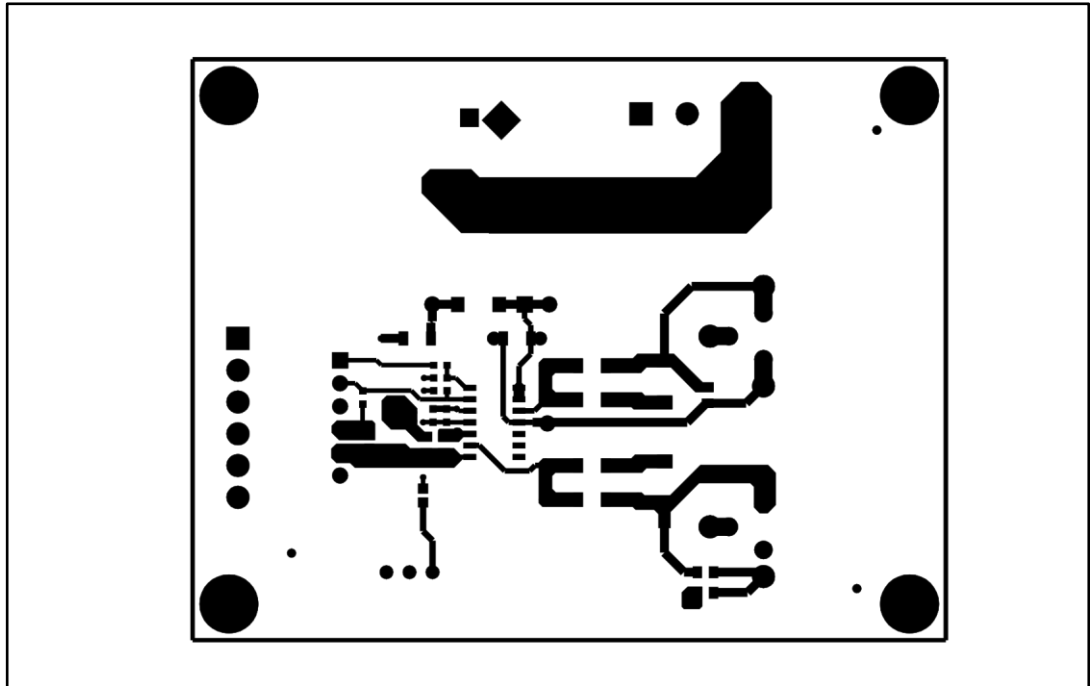


Figure 3: EVAL6498L – layout (bottom layer)

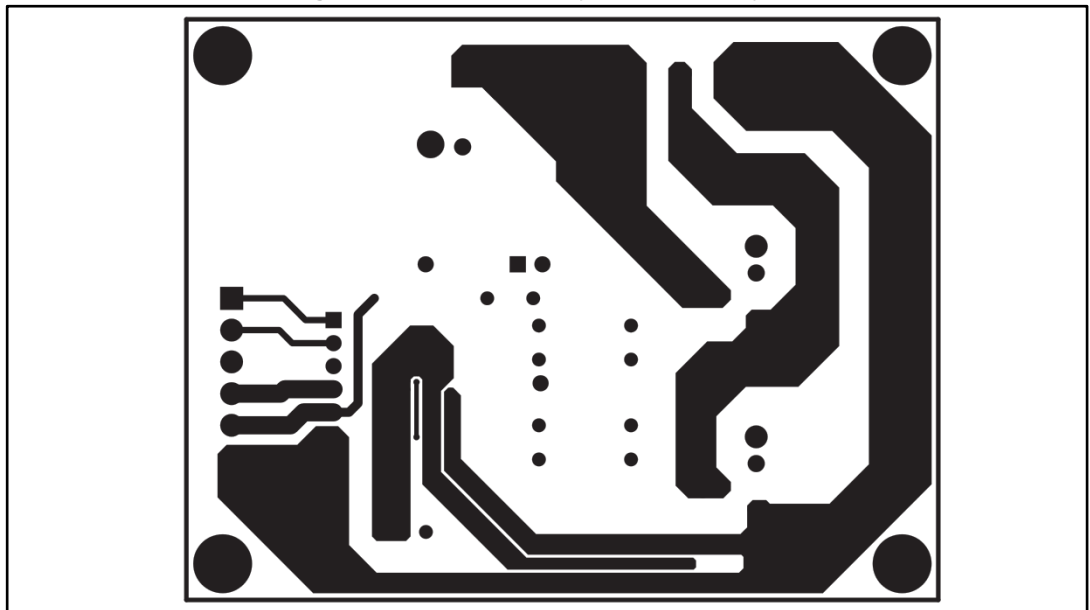
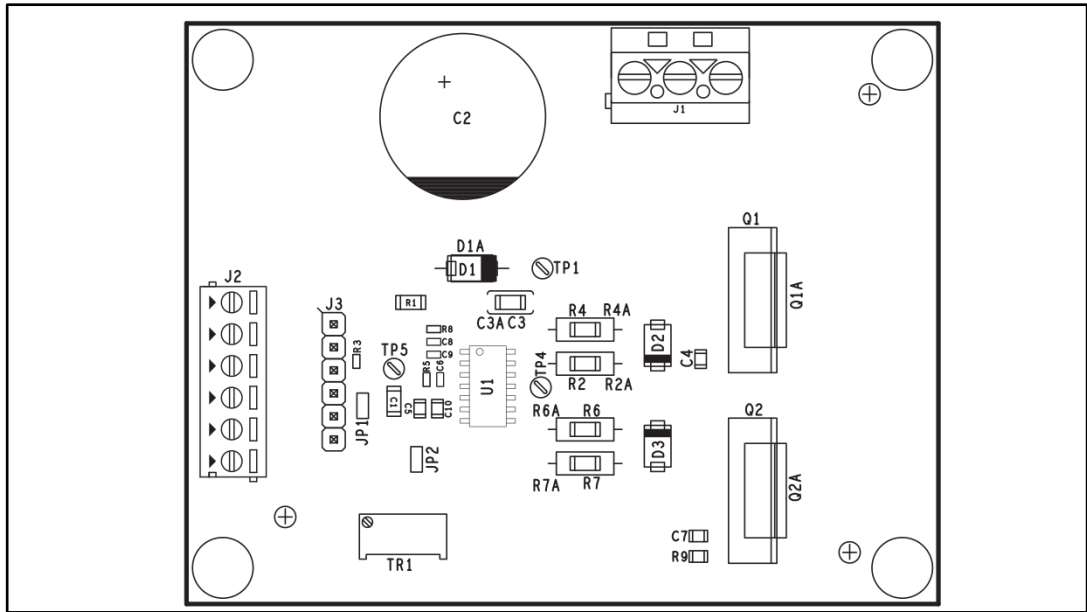


Figure 4: EVAL6498L – layout (component placement view)



## 4 Revision history

Table 2: Document revision history

Date	Version	Changes
09-Nov-2017	1	Initial release.

**IMPORTANT NOTICE – PLEASE READ CAREFULLY**

STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2017 STMicroelectronics – All rights reserved

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Power Management IC Development Tools](#) category:*

*Click to view products by [STMicroelectronics](#) manufacturer:*

Other Similar products are found below :

[EVAL-ADM1168LQEBZ](#) [EVB-EP5348UI](#) [MIC23451-AAAYFL EV](#) [MIC5281YMME EV](#) [DA9063-EVAL](#) [ADP122-3.3-EVALZ](#) [ADP130-0.8-EVALZ](#) [ADP130-1.2-EVALZ](#) [ADP130-1.5-EVALZ](#) [ADP130-1.8-EVALZ](#) [ADP1712-3.3-EVALZ](#) [ADP1714-3.3-EVALZ](#) [ADP1715-3.3-EVALZ](#) [ADP1716-2.5-EVALZ](#) [ADP1740-1.5-EVALZ](#) [ADP1752-1.5-EVALZ](#) [ADP1828LC-EVALZ](#) [ADP1870-0.3-EVALZ](#) [ADP1871-0.6-EVALZ](#) [ADP1873-0.6-EVALZ](#) [ADP1874-0.3-EVALZ](#) [ADP1882-1.0-EVALZ](#) [ADP199CB-EVALZ](#) [ADP2102-1.25-EVALZ](#) [ADP2102-1.875EVALZ](#) [ADP2102-1.8-EVALZ](#) [ADP2102-2-EVALZ](#) [ADP2102-3-EVALZ](#) [ADP2102-4-EVALZ](#) [ADP2106-1.8-EVALZ](#) [ADP2147CB-110EVALZ](#) [AS3606-DB](#) [BQ24010EVM](#) [BQ24075TEVM](#) [BQ24155EVM](#) [BQ24157EVM-697](#) [BQ24160EVM-742](#) [BQ24296MEVM-655](#) [BQ25010EVM](#) [BQ3055EVM](#) [NCV891330PD50GEVB](#) [ISLUSBI2CKIT1Z](#) [LM2744EVAL](#) [LM2854EVAL](#) [LM3658SD-AEV/NOPB](#) [LM3658SDEV/NOPB](#) [LM3691TL-1.8EV/NOPB](#) [LM4510SDEV/NOPB](#) [LM5033SD-EVAL](#) [LP38512TS-1.8EV](#)