

Evaluation kit for EiceDRIVER™ 1EDN7512B single-channel low-side non-isolated gate driver IC

KIT_DRIVER_1EDN7512B

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General description

Introduction

This evaluation kit provides a test platform for Infineon's single-channel non-isolated gate driver IC EiceDRIVER™ 1EDN7512B in SOT-23 5-pin package.

The complete driving circuitry is integrated into the board to allow a simple and practical step-by-step discovery of the 1EDN7512B characteristic and to evaluate the influence of the surrounding driving circuitry on the signal delivered to the load. The load is a low-side MOSFET in TO-220 package; CoolMOS™ or OptiMOS™ power MOSFET solutions from Infineon can be selected.

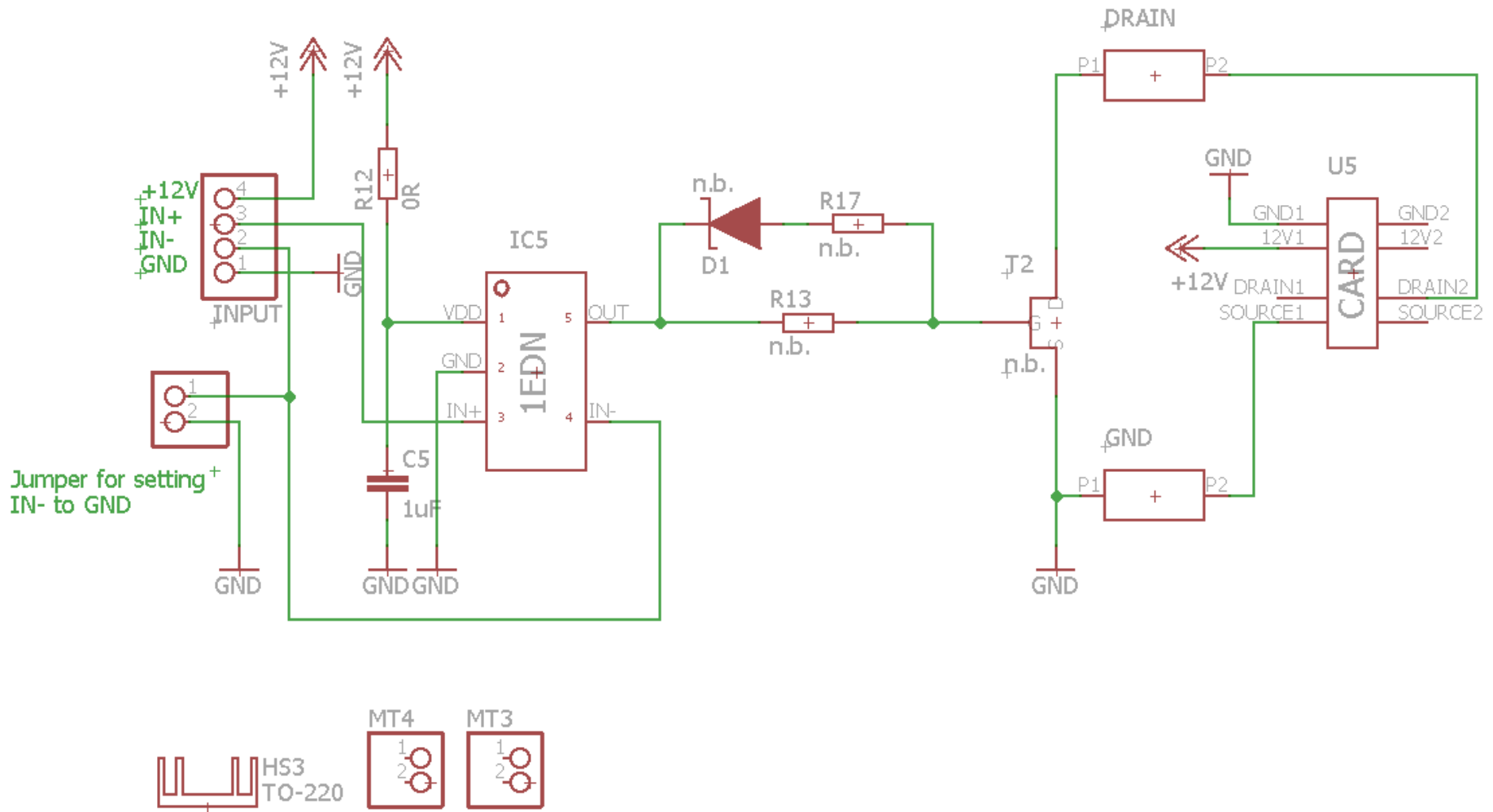
As shown in the quick start guide, the easiest and immediate way-to-use the board is with zero-power applied to the MOSFETs. In that operating condition, the 1EDN7512B load is equivalent to a pure RC filter. Testing with different MOSFETs is a suggested option to evaluate and understand the impact of the MOSFETs input capacitance on the driving timing behavior.

Additionally, the possibility to power-up the MOSFETs and then, trigger the switch of the devices, is purposely provided through banana connectors. An external circuitry must be properly built in that case to provide the bulk voltage and limit the current. Furthermore, pads for a possible connection to a daughter card are included.

Summary of features:

- › Complete and easy-to-use solution platform integrating Infineon's 1EDN7512B EiceDRIVER™ gate driver IC and CoolMOS™ or OptiMOS™ power MOSFET
- › Possible to evaluate the influence of the gate load (R_g or C_{gs}) on the driving behavior of the 1EDN7512B
- › Easy to replace and test different power MOSFETs in TO-220 package

Kit schematic



Steps for mounting the heatsink

The following components need to be added to the kit:

- > Distance bolts
- > Source resistor
- > Sink resistor
- > Sink diode
- > TO-220 socket
- > TO-220 MOSFET

<p>Step 1 Distance bolts mounting</p>	<p>Step 2 Source resistor soldering</p>	<p>Step 3 Sink resistor and sink diode soldering</p>	<p>Step 4 TO-220 socket soldering</p>
<p>Step 5 MOSFETs placement into the socket</p>	<p>Step 5 MOSFETs placement into the socket</p>	<p>Step 7 IN- jumper connection</p>	

- > For detailed information on how to fully assemble the kit, download the [Quick Start Guide here](#)

Cross reference

Sales_product_name	Gate Driver	Channel	Isolation	Package
KIT_DRIVER_1EDN7511B	1EDN7511B	1	Non-isolated	SOT-23 6pin
KIT_DRIVER_1EDN7512B	1EDN7512B	1	Non-isolated	SOT-23 5pin
KIT_DRIVER_1EDN7512G	1EDN7512G	1	Non-isolated	WSO6 6pin
KIT_DRIVER_1EDN7550B	1EDN7550B /1EDN8550B	1	Non-isolated	SOT-23 6pin
KIT_DRIVER_2EDN7524F	2EDN7524F	2	Non-isolated	DSO 8pin
KIT_DRIVER_2EDN7524R	2EDN7524R	2	Non-isolated	TSSOP 8pin
KIT_DRIVER_2EDN7524G	2EDN7524G	2	Non-isolated	WSO8 8pin
KIT_DRIVER_2EDF7275F	2EDF7275F	2	Functional isolation	NB-DSO-16 150mil
KIT_DRIVER_2EDS8265H	2EDS8265H	2	Reinforced isolation	WB-DSO-16 300mil



Technical Material

- Application Notes
- Simulation Models
- Datasheets
- PCB Design Data

> www.infineon.com/kit-driver-1edn7512b

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