

High Current Discrete Half-Bridge Based on IR2104 Or IR2101

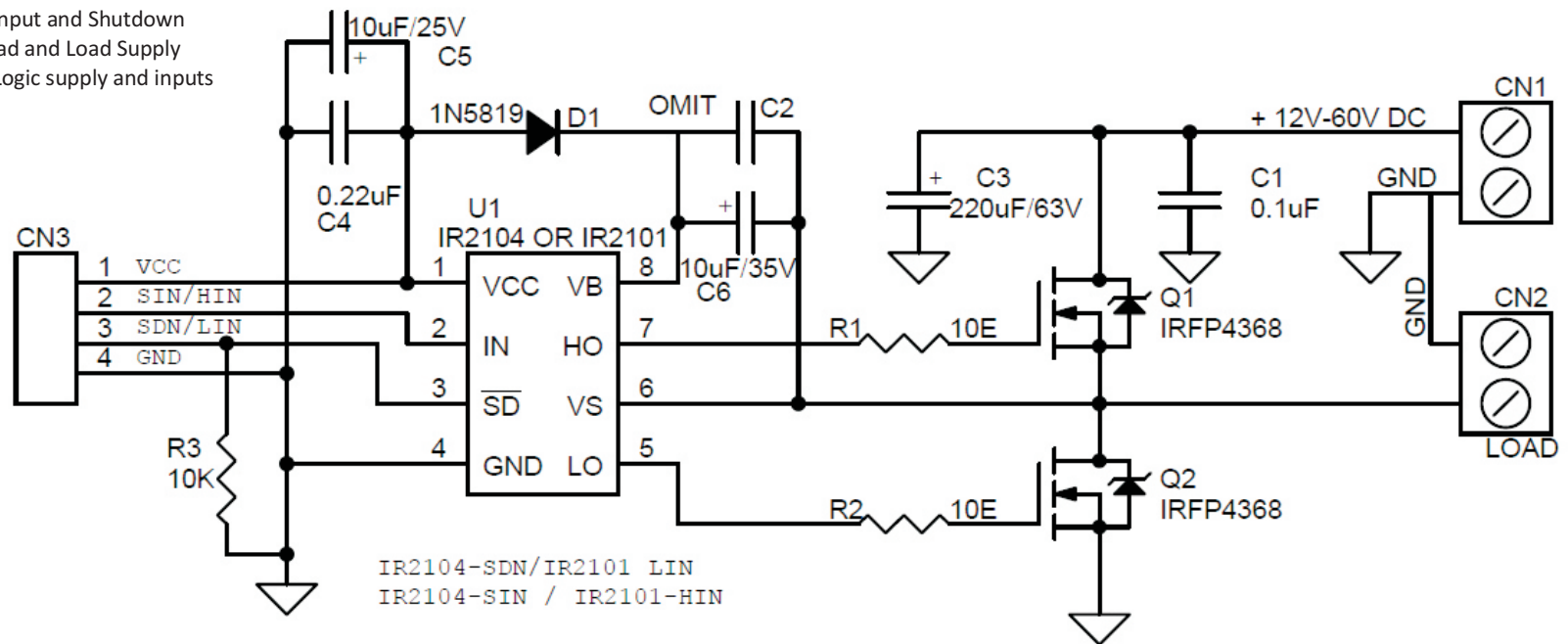
The discrete Half-bridge driver based on IR2104 gate driver IC and low impedance high current N channel IRFP4368 MOSFETS, The IR2104 is a high voltage, high speed power MOSFET driver with independent high and low side referenced output channels. HVIC and latch immune CMOS technologies enable ruggedized monolithic construction. The logic input is compatible with standard CMOS or LSTTL output, down to 3.3V logic. A gate IR2104 driver is a power amplifier that accepts a low-power input from a controller IC and produces a high-current drive input for the gate of a high-power transistor such as a power MOSFET. In essence, a gate driver consists of a level shifter in combination with an amplifier.

This drive has many applications, ranging from DC-DC power supply for high power density and efficiency, This project simplifies the design of control systems for a wide range of motor applications such as home appliances, industrial drives, DC brushed motors, Brushless motors, fans, Tesla Coil driver, Induction coil driver, LED driver, Halogen Lamp driver.

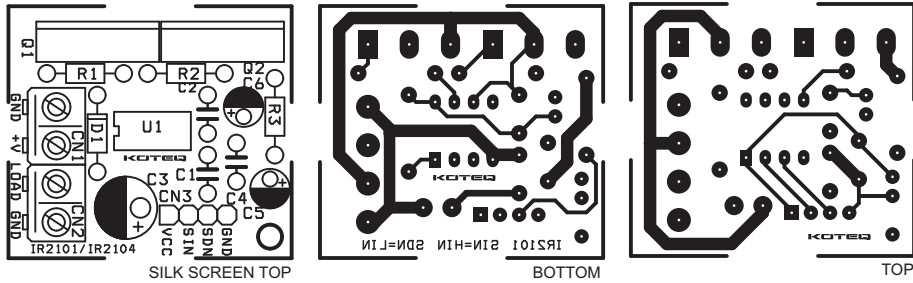
Note: This board has provision to use IR2101 IC for dual signal Low/High input. For Continuous 30Amps load PCB track thickness 70 microns.

Features

- Load Supply 12 to 60V DC
- Load Current 30Amps (Peak 50Amps)
- Logic Supply 12 To 15V DC
- Input Signals 3.3V to 15V
- IR2104 Single PWM input or IR2101 Dual Input
- Compact Design
- Required Single PWM input and Shutdown
- Screw Terminals for Load and Load Supply
- Header Connector for Logic supply and inputs



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BOM			
SR	QNTY.	REF.	DESC.
1	1	CN1	2 PIN SCREW TERMINALS
2	1	CN2	2 PIN SCREW TERMINALS
3	1	CN3	4 PIN HEADER CONNECTOR
4	1	C1	0.1uF
5	1	C2	OMIT
6	1	C3	220uF/63V
7	1	C4	0.22uF
8	1	C5	10uF/25V
9	1	C6	10uF/35V
10	1	D1	1N5819
11	2	Q1,Q2	IRFP4368 (TO247)
12	2	R1,R2	10E
13	1	R3	10K
14	1	U1	IR2104 OR IR2101
15	1	SCKT	8 PIN DIP IC SOCKET