

## HALF BRIDGE DRIVER BASED ON IR2104

This Half-bridge driver based on IR2104 gate driver IC and N channel Dpak MOSFET , 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 application, 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,



### Features

Load Supply 12 to 36V DC

Load Current 10Amps (Peak 20Amps)

Logic Supply 12 To 15V DC

Input Signals 3.3V to 15V

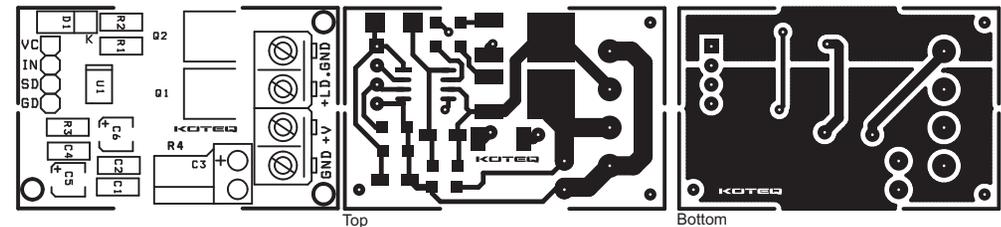
SMD based tiny design

Required Single PWM input

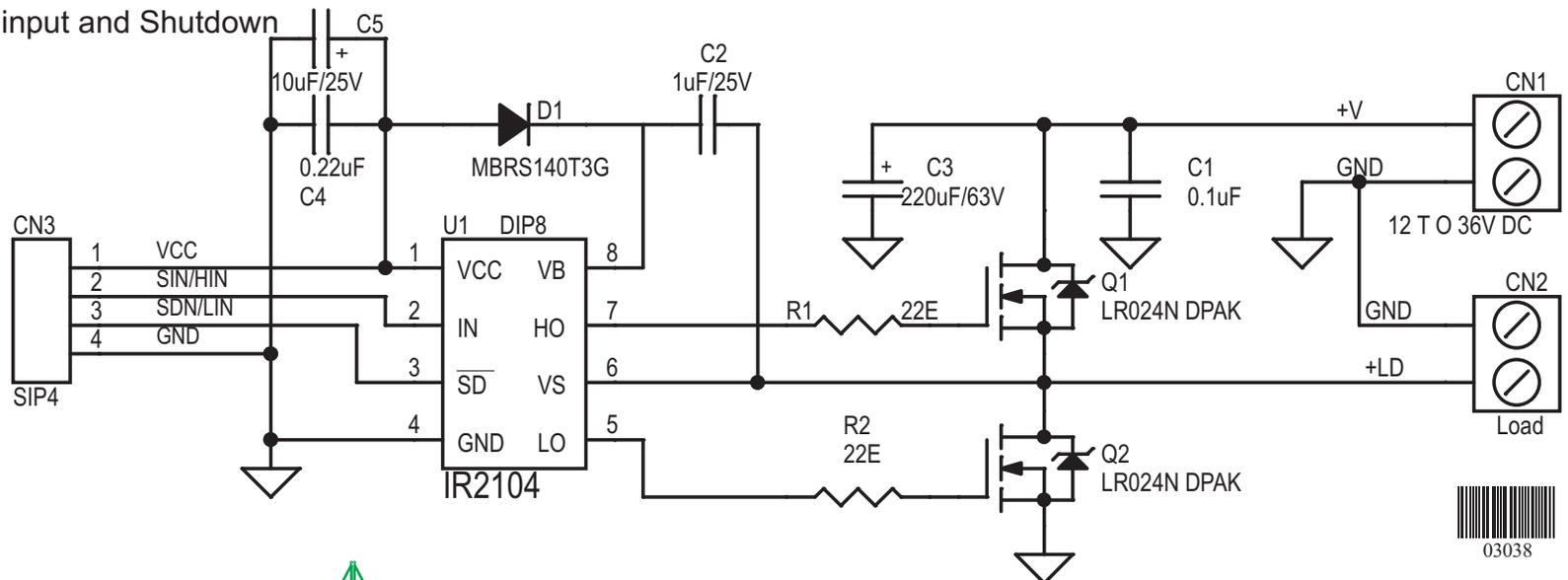
Shutdown Input

Screw Terminals for Load and Load Supply

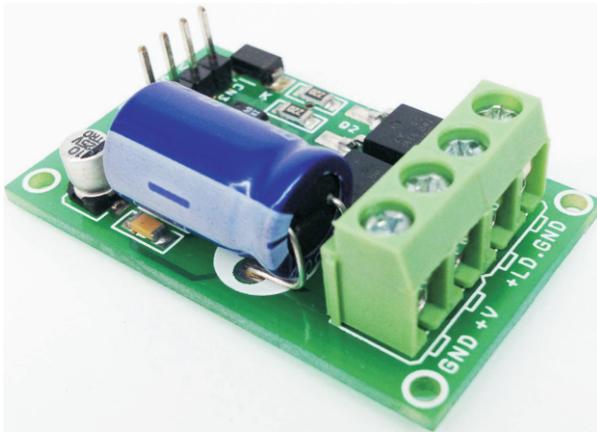
Header Connector for Logic supply and inputs



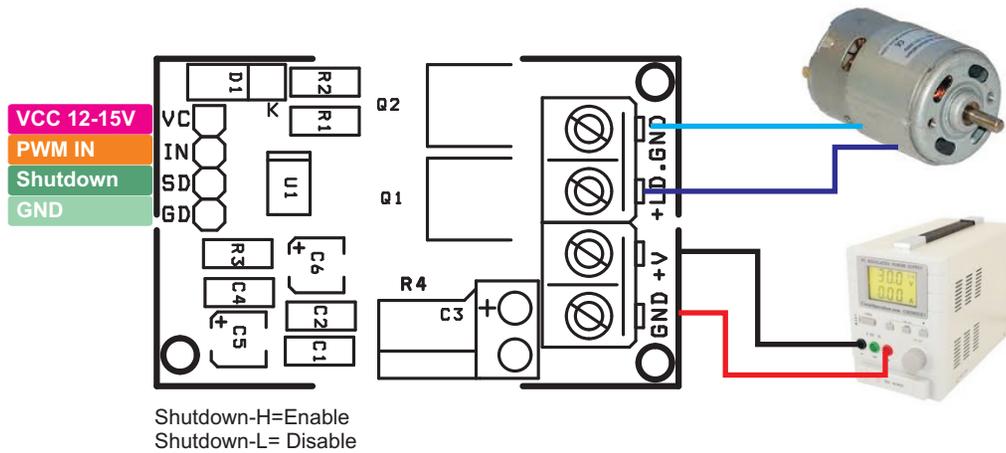
Required : Single PWM input and Shutdown



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1	1	CN1	2 PIN SCREW TERMINAL
2	1	CN2	2 PIN SCREW TERMINAL
3	1	CN3	4 PIN HEADER
4	1	C1	0.1uF SMD 1206
5	1	C2	1uF/25V SMD 1206
6	1	C3	220uF/63V
7	1	C4	0.22uF SMD 1206
8	1	C5	10uF/25V
9	1	D1	MBRS140T3G
10	2	Q1,Q2	LR024N DPAK
11	2	R1,R2	22E SMD 1206
12	1	U1	IR2104 SMD SO8



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