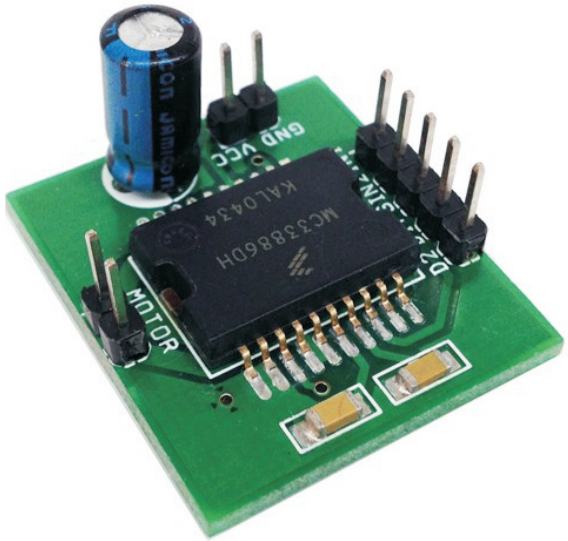
5A H-Bridge Module MC33886

The tiny module has been designed to use in Robotics, Power tools, Automotive application, The module based on MC33886 from NXP, MC33886 is a monolithic power IC comprising control logic, charge pump, gate drive, and low RDS(ON)MOSFET output H-Bridge circuitry in a small surface mount package. MC33886 is a monolithic h-Bridge ideal for fractional horsepower DC-Motor and bi-directional thrust solenoid control. The IC incorporates internal control logic, charge pump, gate drive, and low Rds. MOSFET output circuitry. The MC33886 is able to control continuous inductive DC load currents up to 5A. Output loads can be pulse width modulated (PWM) at frequencies up to 10 KHz. A Fault status output reports under-voltage, short-circuit, and over temperature conditions. Two independent inputs control the two half-bridge totem-pole outputs.



Features

Supply 5V to 28V
TTL/CMOS compatible Inputs
Continuous DC Load Current up to 5.2A min
Output Current Limitation at min. 5.2A with PWM Current Regulation
Short-Circuit Shutdown for Output Currents over 8A
Logic Inputs TTL/CMOS Compatible
Operating Frequency up to 10 kHz
Over temperature and Short Circuit Protections
Under voltage disable Function
Output control via two independent inputs (forward, reverse, free-wheeling low/high)
Two disable inputs are provided: Low =True and High =True

Applications

DC Motor control in Robotics and industrial
DC Motor & actuator control in Recreational Vehicles
Appliances
Automotive
Powered Machines and Tools

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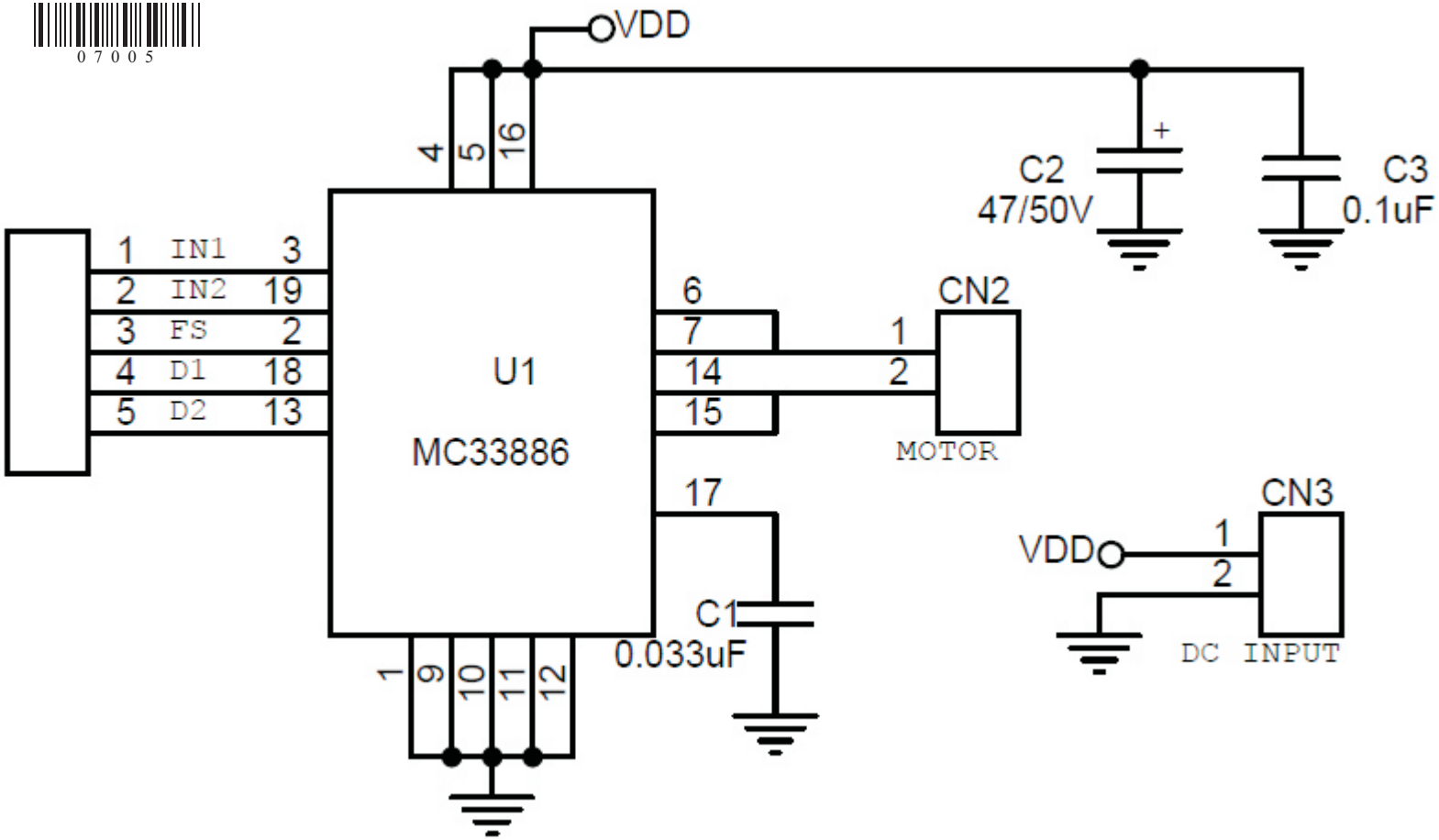

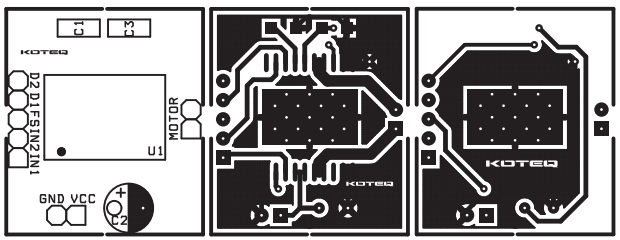

BOM			
SR.	QNTY.	REF.	DESC.
1	1	CN1	5 PIN HEADER CONNECTOR
2	2	CN2,CN3	2 PIN HEADER CONNECTOR
3	1	C1	0.033uF SMD 1206
4	1	C2	47/50V
5	1	C3	0.1uF SMD 1206
6	1	U1	MC33886

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Input Conditions				
D1	D2\	IN1	IN2	MOTOR
L	H	H	L	FORWARD RUN
L	H	L	H	REVERSE RUN
L	H	L	L	FREE WHEELING LOW
L	H	H	H	FREE WHEELING HIGH
CN2 : MOTOR				
CN1: INPUTS				
CN3: DC SUPPLY