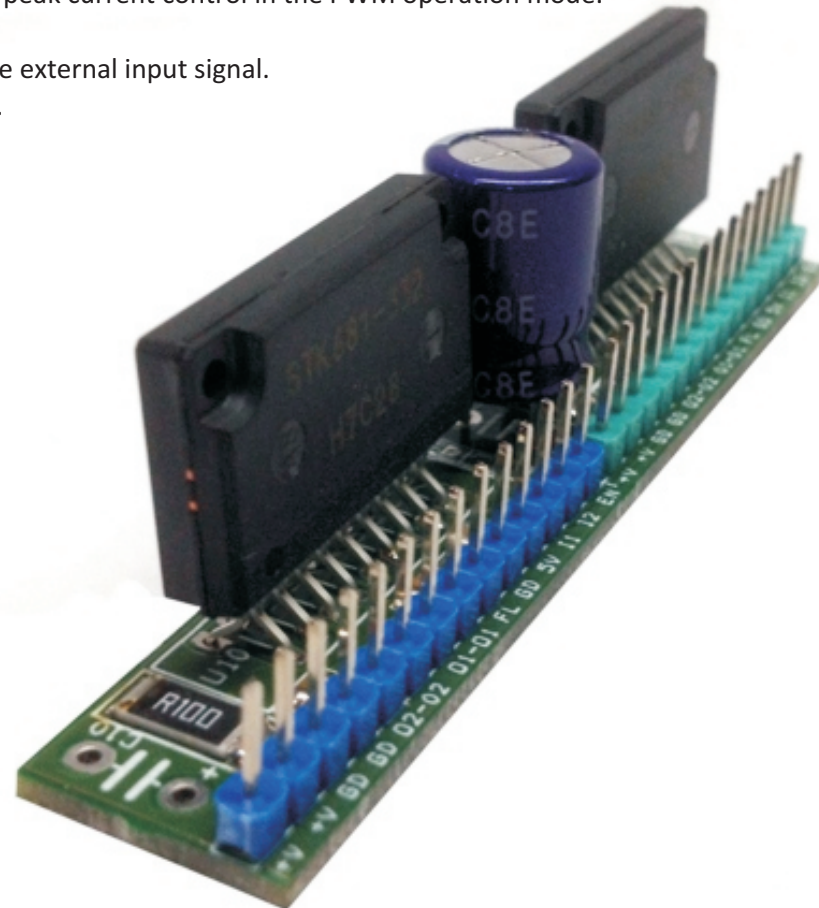
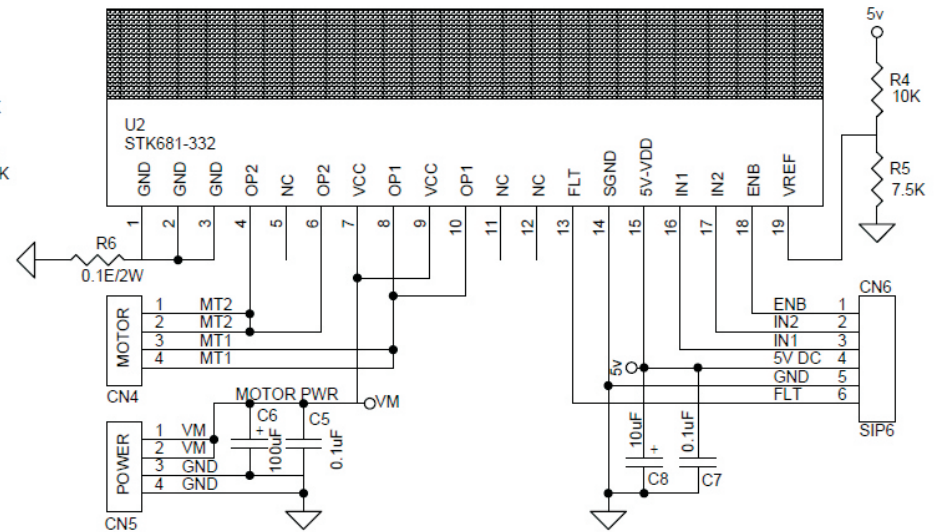
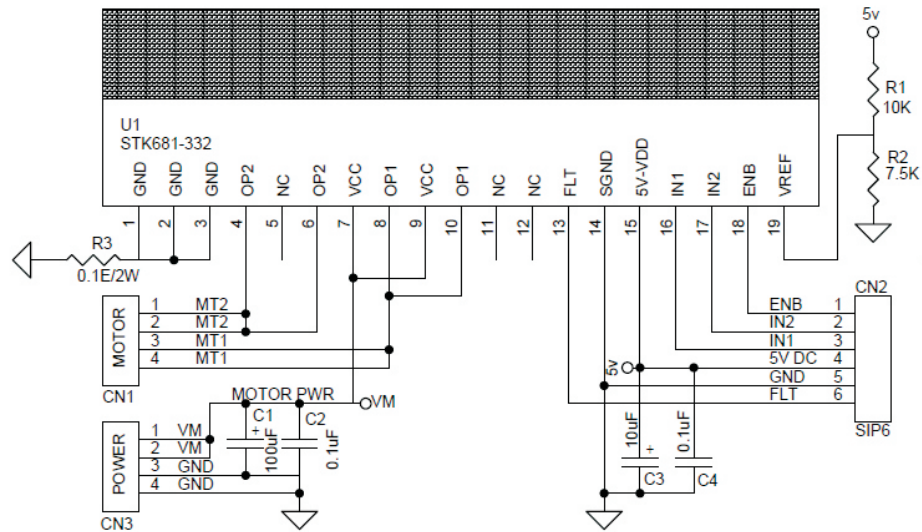


## Dual Forward/Reverse DC Motor Driver With Brake For Robots

The high current forward reverse DC motor driver built using STK681-332 IC from ON Semi, the circuit can drive brushed DC Motor up to 12 Amp peak current. The circuit required 3 input signals, Enable for PWM input for speed control, IN1 and IN2 to change the motor direction and to apply brake while motor is in running condition. Monitor (Fault) pin used when either of the output short-circuit detector, overcurrent detector, or overheat detector is activated. When the detector is activated, this pin is set low and all outputs are latched off. If the output pin is short-circuited directly to VCC or connected directly to GND, an output short circuit condition is detected and the output is latched in the off state. To restart the operation, turn on 5V supply again. Maximum input frequency 50 KHz. Both IC required large size heat sink.

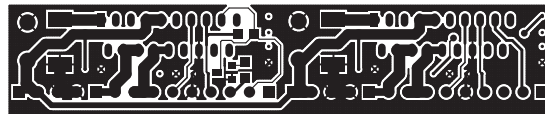
- DC Supply Input Up to 48V DC
- Maximum Peak Current 12Amp
- External current detection resistor allows overcurrent detection and peak current control in the PWM operation mode.
- Maximum Operation Frequency 50Khz
- Allows forward, reverse, and brake operations in accordance with the external input signal.
- 12A peak startup output current and 12A peak brake output current.
- On-chip outputs short-circuit detection function.



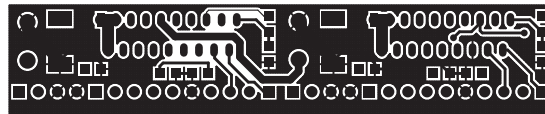




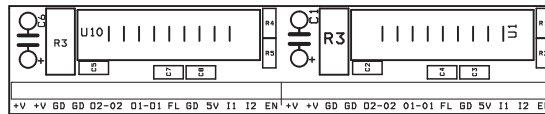
SILK SCREEN BOTTOM



BOTTOM LAYER



TOP LAYER



SILK SCREEN TOP  
PCB DIMENSIONS 71.97MM X 14.47MM

BOM			
SR.	QNTY.	REF.	DESC.
1	2	CN1,CN4	4 PIN HEADER CONNECTOR
2	2	CN2,CN6	6 PIN HEADER CONNECTOR
3	2	CN3,CN5	4 PIN HEADER CONNECTOR
4	2	C1,C6	100uF/63V
5	4	C2,C4,C5,C7	0.1uF SMD 0805 50V
6	2	C3,C8	10uF/10V SMD 0805
7	2	R1,R4	10K SMD 0805
8	2	R2,R5	7.5K SMD 0805
9	2	R3,R6	0.1E/2W SMD 2512
10	2	U1,U2	STK681-332

