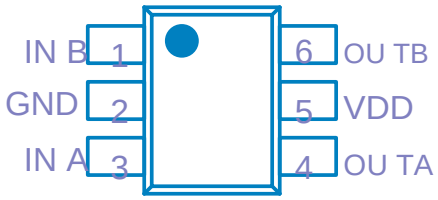
Features

- Single channel built-in powerMOSFull Bridge Drive
- Drive forward, reverse, stop and brake functions
- Built-in hysteresis thermal effect overcurrent protection function
- Low on-resistance (0.5Ω）
- The maximum continuous output current can reach0.9A,Peak current2.3A
- useSOT23-6Package

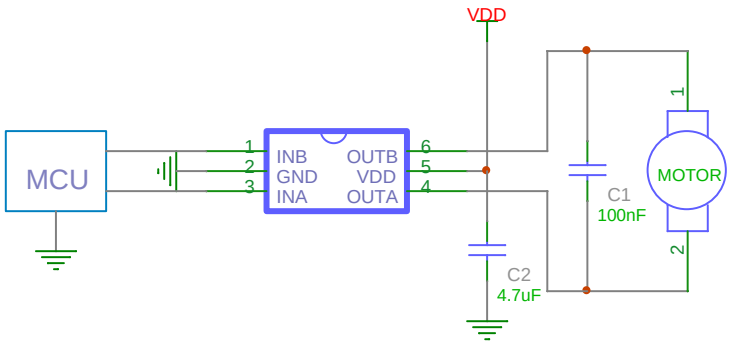
Application

- Low voltage motor drive
- Electronic toy robot

Pin diagram and function description

Pin Diagram	Serial number	symbol	I/O	Functional Description
 SOT23-6	1	INB	—	Control inputB(High level trigger)
	2	GND	I	Ground (negative pole of power supply)
	3	INA	I	Control inputA(High level trigger)
	4	OUTA	P	HBridge outputAend
	5	VDD	O	Positive power supply
	6	OUTB	G	HBridge outputBend

Application Circuit Diagram



Absolute Maximum Ratings

parameter	symbol		Rating	unit
Supply voltage	VCC		6.8	V
Power consumption	Pd	SOP-8	0.96	W
Thermal resistance	θJA	SOP-8	130	℃/W
Operating temperature	Topr		- 20~85	℃
Junction temperature	Tj		150	℃
Storage temperature	Tsj		- 55~150	℃
Manual soldering temperature			350~370	℃
Output current peak	Iop		2.3	A
Maximum continuous output current	Ioc		1.1	A

Note: The maximum continuous output current depends on the cooling conditions.

Recommended operating conditions(Ta=25℃)

parameter	symbol	Parameter Value	unit
Supply voltage	VCC	2.0~6.5	V
Control input voltage	VIN	0~VCC	V
Forward and reverse output current	Iout	900	mA

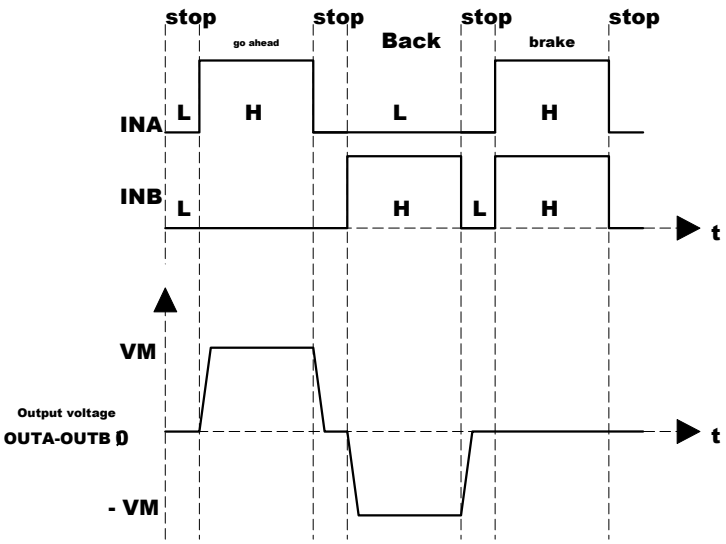
Electrical Characteristics (Ta=25℃,VCC=3V,RL=15Ω, unless otherwise specified.)

parameter	symbol	Test conditions	Minimum	Typical Value	Maximum	unit
Overall line						
Circuit shutdown current	ICCST	INA=INB=GND	—	0	5	uA
Working current	ICC	INA=H, INB=L or INA=L, INB=H or INA=H, INB=HOutput floating	—	0.3	1	mA
Control Input						
High level input voltage	VINH		2.0	—	—	V
Low level input voltage	VINL		—	—	0.8	V
High level input current	IINH	VIN=3V	—	2.6	20	uA
Low level input current	IINL	VIN=0V	- 1	0	—	uA
Pull-down resistor	RIN		—	150	—	KΩ
drive						
Output on-resistance	RON	Io=±200mA	—	0.4	0.6	Ω

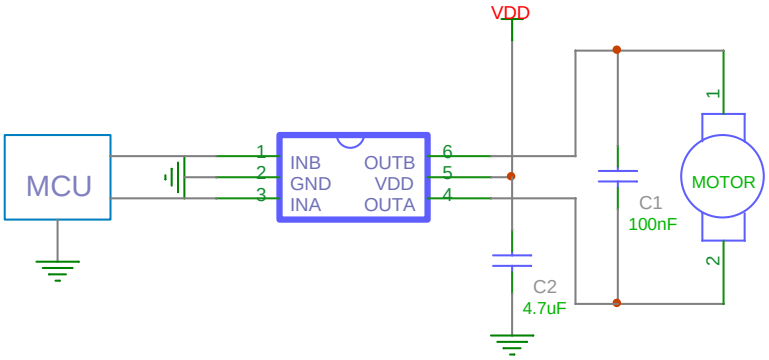
Input/Output Logic Table

enter		Output		Way
INA	INB	OUTA	OUTB	
L	L	Hi-Z	Hi-Z	Standby
H	L	H	L	go ahead
L	H	L	H	Back
H	H	L	L	brake

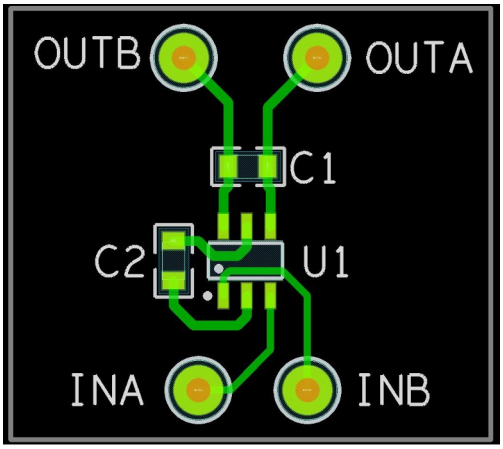
Input/Output Waveform



PCBWiring Guide

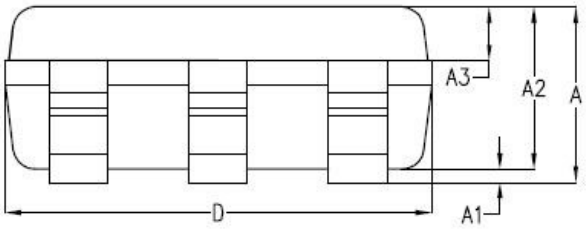


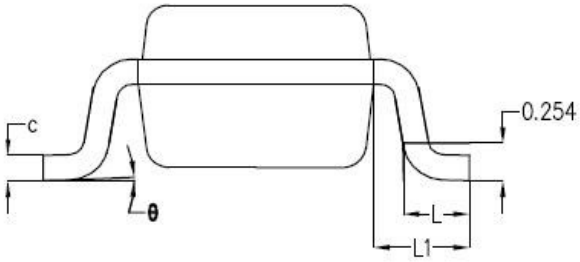
Note: In the figureC1（100n F）The capacitor should be connected to the motor first. If it is not convenient to connect to the motor, place itPCBsuperior.C2In the application3VRecommended 1uFor above;4.2 power supply V - 4.6VRecommended in application4.7uFor above;6VRecommended in application10uFOr the above are all using chip capacitors closeICOfVDDPin placement The negative electrode of the capacitor andICofGNDThe connection between the terminals should also be as short as possible. The line is very long. Please refer to the followingPCBWiring diagram.

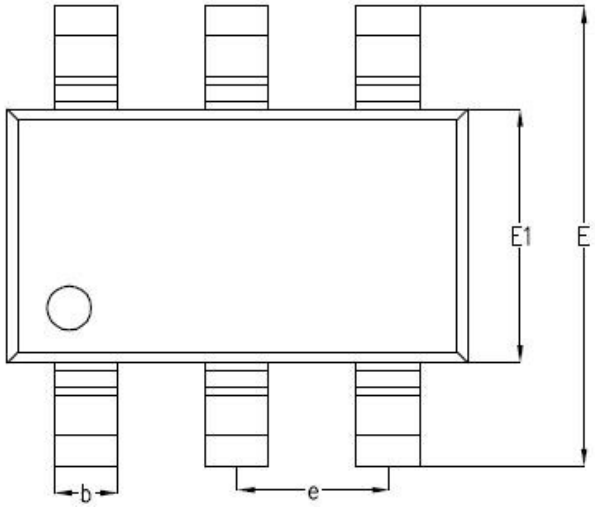


Packaging information

- SOT23-6







symbol	Millimeters		
	Minimum	Typical Value	Maximum
A	-	1.19	1.24
A1	-	0.05	0.09
A2	1.05	1.10	1.15
A3	0.31	0.35	0.41
b	0.35	0.40	0.45
c	0.12	0.17	0.22
D	2.85	2.90	2.95
E	2.80	2.90	3.00
E1	1.55	1.60	1.65
e	0.95BSC		
L	0.37	0.45	0.53
L1	0.65BSC		
θ	0º	2º	8º