

The rights of this document are enjoyed by FM Fuman, you can also visit the official website of FM Fuman; Lichuang Mall WWW.SZLCSC.COM, China's leading spot component trading platform.

TC118 (Document No.: S&CIC1060)

Single channel DC motor driver

1. Features

- > Single channel built-in power MOS full bridge driver

> Drive forward, backward, stop and brake functions

> Built-in hysteresis thermal effect overcurrent protection function

> Low on-resistance (1.6Ω)
- > The maximum continuous output current can reach 1.8A, the peak value is 2.5A

> No need for external filter capacitor

> Adopt DIP-8, SOP-8 package form

2. Product application

- > Toy motor drive

Three, pin diagram and pin description

Pin diagram						Serial number	symbol	I/O	Function Description
						1	NC	—	Hang in the air
NC	1	8	OUTA	NC	1	8	OUTA	I	Join INB to determine state
INA	2	7	PGND	INA	2	7	PGND	I	Join INA to determine state
INB	3	6	AGND	INB	3	6	AGND	P	Power positive
VDD	4	5	OUTB	VDD	4	5	OUTB	O	Full-bridge output terminal B
						6	AGND	G	ground
						7	PGND	G	ground
						8	OUTA	O	Full bridge output terminal A

The rights of this document are enjoyed by FM Fuman, you can also visit the official website of FM Fuman; Lichuang Mall WWW.SZLCSC.COM, China's leading spot component trading platform.

TC118 (Document No.: S&CIC1060)

Single channel DC motor driver

5. Recommended working conditions (Ta=25°C)

parameter	symbol	Parameter value	unit
voltage	VCC	2.4~7.2	V
Control input voltage	VIN	0~VCC	V
Positive and reverse output current	Iout	-1500~1500	mA

6. Electrical characteristics (Ta=25°C, VCC=3V, RL=15Ω, except for special instructions.)

parameter	symbol	Test condition	Minimum	typical	maximum	unit
Overall route						
Circuit shutdown current	ICCST	INA=INB=1	—	0	10	uA
Working current	ICC	INA=H, INB=L or INA=L, INB=H or INA=H, INB=H	—	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	—	5	20	uA
Low-level input current	IINL	VIN=0V	-1	0	—	uA
Pull-down resistor	RIN		—	1.5	—	MΩ
drive						
Output on-resistance	RON	Io=±200mA	—	1	1.6	Ω

Seven, input / output logic table

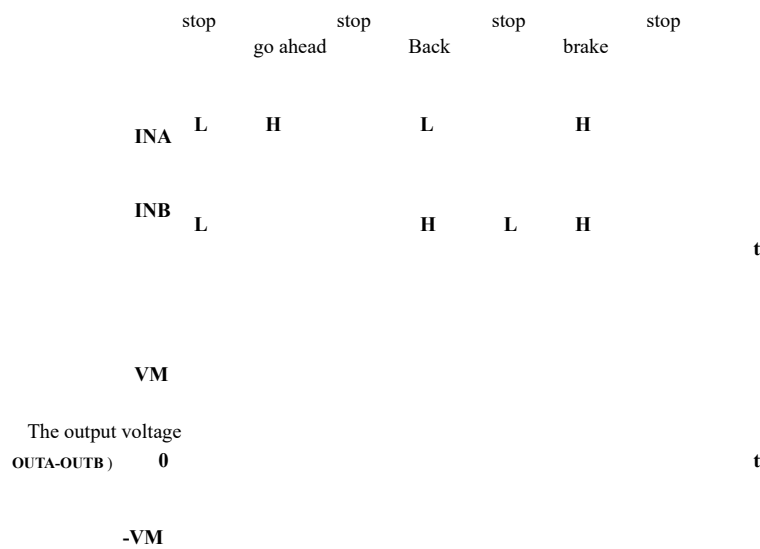
enter		Output		Way
INA	INB	OUTA	OUTB	
L	L	Hi-Z	Hi-Z	Standby state
H	L	H	L	go ahead
L	H	L	H	Back

The rights of this document are enjoyed by FM Fuman, you can also visit the official website of FM Fuman; Lichuang Mall WWW.SZLCSC.COM, China's leading spot component trading platform.

TC118 (Document No.: S&CIC1060)

Single channel DC motor driver

8. Input / output waveform



Nine, application reference circuit diagram

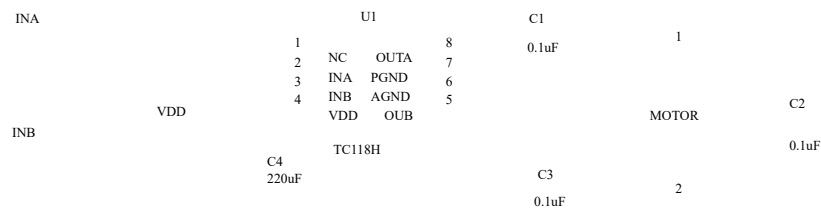


Figure 1: Typical application scheme application circuit diagram

Note: 1. The capacitor C2 (0.1uF) in the figure is connected in parallel to the motor, not on the PCB.

The rights of this document are enjoyed by FM Fuman, you can also visit the official website of FM Fuman; Lichuang Mall WWW.SZLCSC.COM, China's leading spot component trading platform.

TC118 (Document No.: S&CIC1060)

Single channel DC motor driver

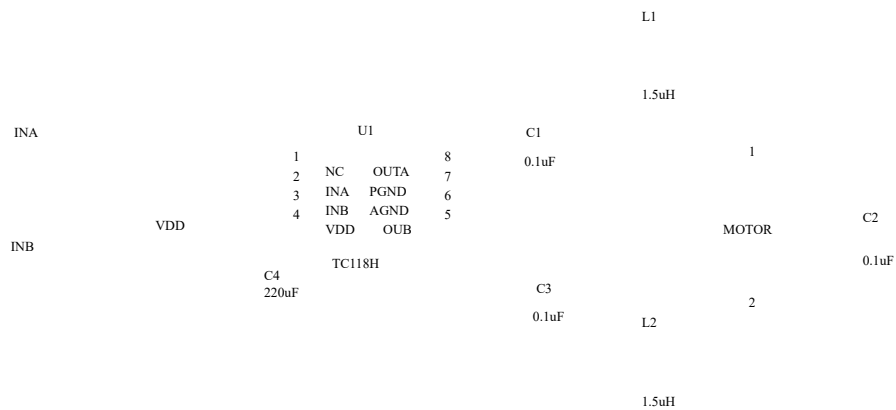
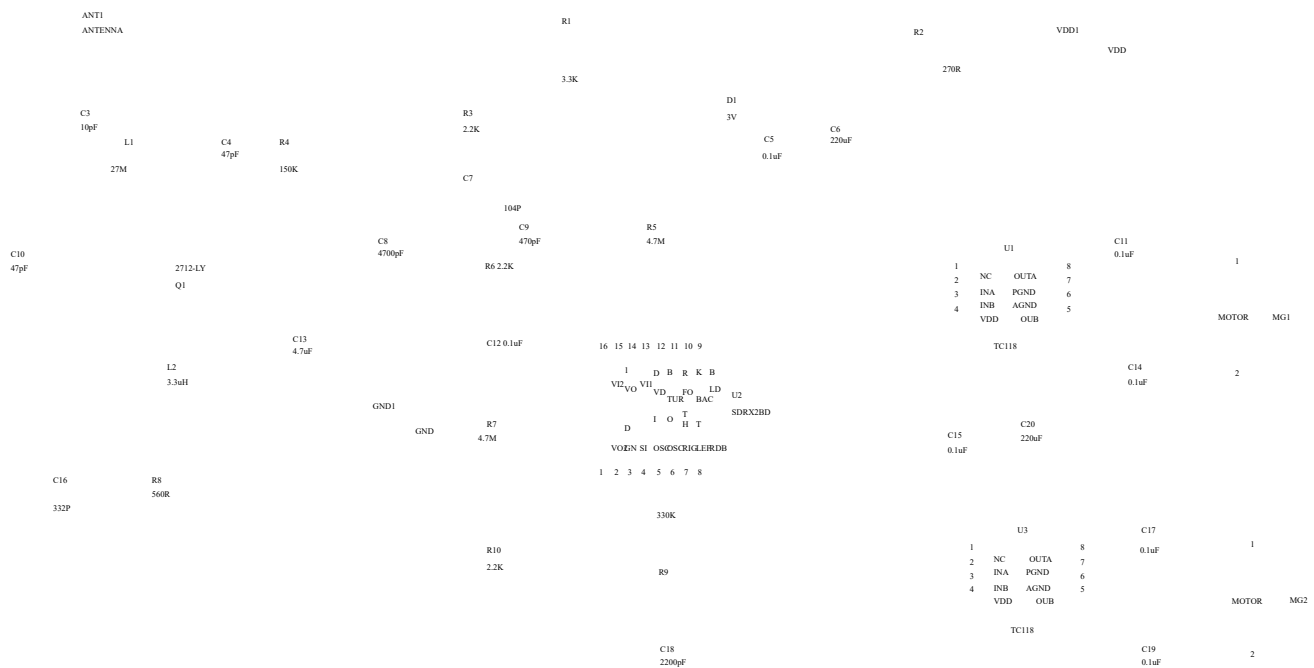


Figure 3: Application circuit diagram of strong interference scheme

Note: 1. The capacitor C1 (0.1uF) in the figure is connected in parallel to the motor and not placed on the PCB.



TC118 (Document No.: S&CIC1060)

Single channel DC motor driver

11. Package size drawing

➤ DIP-8

➤ SOP-8