AE2501B

● General Description:

AE2501B is a monolithic full_bridge driver. It is provided with forward and reverse Functions and is ideal as a driver circuit for a motor. The drivers capable of Delivering output currents to 500mA .The Peak Current is 1.1A ,Built in peak current protection. It controlled by a TTL-compatible logic input and drive inductive loads such as relays , solenoids ,Dc and stepping motors.

● Features:

※ low quiescent current

※ wide supply voltage：3—9V

※ Peak current 1.1A，constant current 500mA

※ Built in catch Diode suite for inductive loads

※ Accept standard TTL/CMOS logic levels

※ When two input both low level the chip into low power.

※ Package SOP8/DIP8

● Pin Assign :



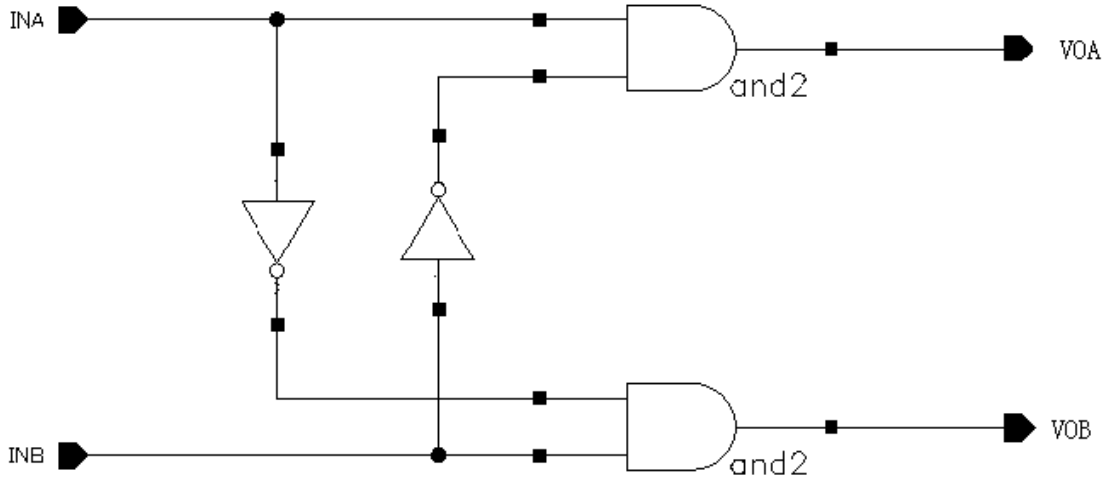
●Pin Description

No	Symbol	Function
1	IN_A	Motor forward input
2	VCC	Supply Voltage
3	V_{OB}	Motor reverse output
4	GND	Ground
5	GND	Ground
6	V_{OA}	Motor forward output
7	VCC	Supply Voltage
8	INB	Motor reverse input

● Logical Function

IN_A	IN_B	VO_A	VO_B	DC Motor
H	L	H	L	Forward
L	H	L	H	Reverse
L	L	OPEN	OPEN	Stop
H	H	×	×	×

● Block Diagram



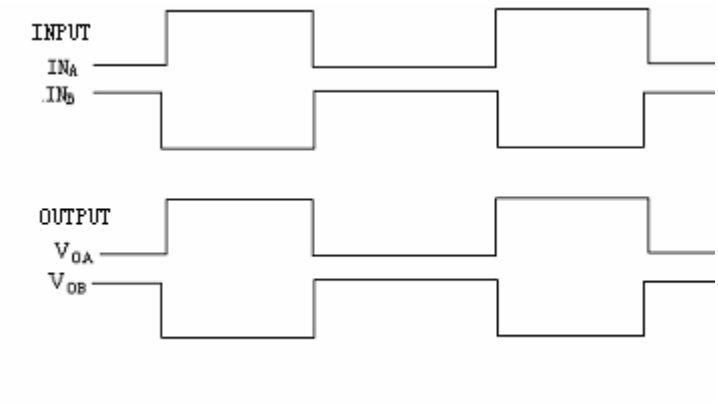
● Absolute Maximum Rating

Parameter	Symbol	Range	Unit
Voltage Supply	V_{CC}	3.0～9.0	V
Input voltage range	V_{IN}	1.5～V_{CC}	V

●Electrical Characteristics

Parameter	Symbol	Min	Max	Conditions	Unit
Quiescent current	I_{OFF}		1.0	V_{CC}=9V	μA
Constant output current	I_{ON1}		500	V_{CC}=5V，V_{IN}=2V，R=7.2Ω	mA
Output peak current	I_{ON2}		1.1	V_{CC}=5V，V_{IN}=2V，R=3.2Ω	A
Input low level	V_{IL}		1.3	V_{CC}=3V	V
Input high level	V_{IH}	1.6		V_{CC}=3V	V

● Wave Form：



● Application Circuit（1）：

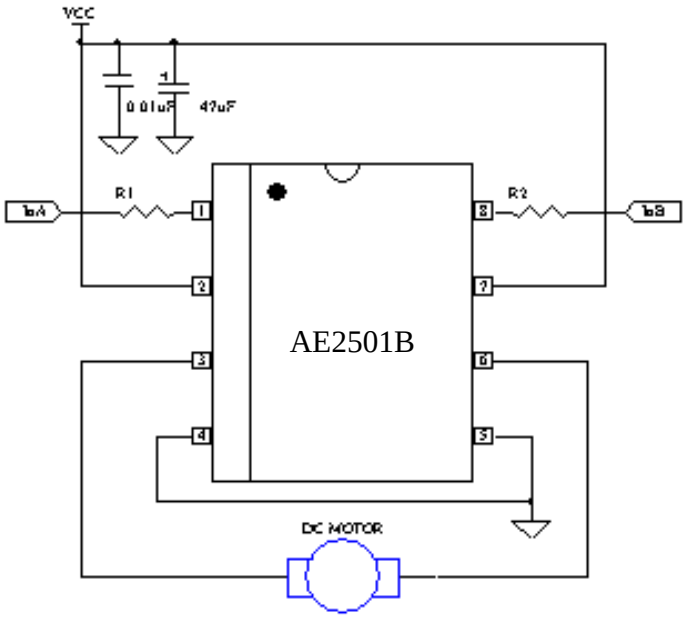


Figure 1.Typical application circuit

Note:

1. When the V_{IH}>2V,the external resistor must add to Pin1 & Pin8 to limit input current.The range of resistance should calculate with the following formula(the unit is KΩ) :

$$R_{1,2MIN}=5.8\times Vin-8.7$$

$$R_{1,2MAX}=17.2\times Vin-25.8$$

2. IN_A and IN_B can't be high level at the same time,this state is forbid for this chip.

● Application Circuit（2）：

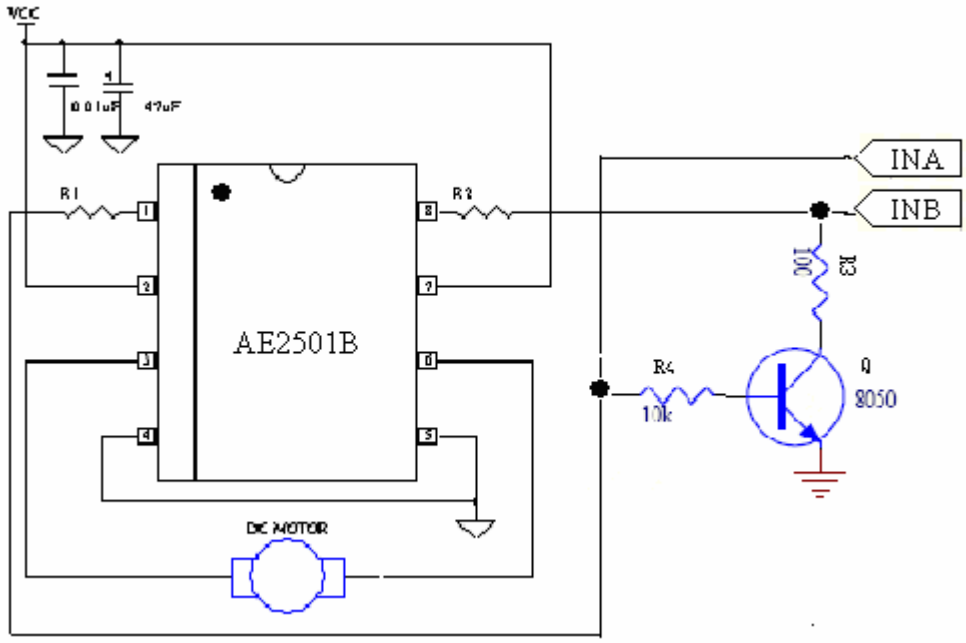


Figure 2.Typical application circuit