

Reversible motor driver

BA6218

The BA6218 reversible-motor driver supplies an output current of 0.7A (maximum). Two logic inputs allow four output modes: forward, reverse, idling, and braking. The logic section and power section have separate ground pins. By connecting an electronic governor, the IC can be used for controlling reversible, variable-speed motors.

● Features

- 1) Built-in surge absorbing diodes.
- 2) Small standby supply current.
- 3) Wide range of operating voltage. (4.5 ~ 15V)
- 4) Interfaces with TTL devices.

● Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Power supply voltage	V _{CC}	18	V
Power dissipation	P _d	800*	mW
Operating temperature	T _{opr}	-20~+60	°C
Storage temperature	T _{stg}	-55~+125	°C
Maximum output current	I _o	0.7	A

* Reduced by 8 mW for each increase in Ta of 1°C over 25°C.

● Recommended operating conditions (Ta = 25°C)

Parameter	Min.	Typ.	Max.	Unit
Voltage applied between V _{CC} (pin 6) and GND (pins 2 and 5)	4.5	—	15	V
Voltage applied between V _{CC} (pin 6) and COM (pin 8)	4.0	—	15	V

● Electrical characteristics (unless otherwise noted, Ta = 25°C, V_{CC} = 9V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions	Measurement circuit
Supply current 1	I _{o1}	18	34	50	mA	1pin "H", 3pin "L" or 1pin "L", 3pin "H", R _L =∞	Fig.2
Supply current 2	I _{o2}	34	52	70	mA	1pin "H", 3pin "H", R _L =∞	Fig.2
Standby supply current	I _{ST}	—	1	11	μA	1pin "L", 3pin "L"	Fig.2
Input high level voltage	V _{IH}	2.0	—	—	V	—	Fig.2
Input low level voltage	V _{IL}	—	—	0.8	V	—	Fig.2
Input high level current	I _H	—	93	135	μA	V _{IN} =2.0V	Fig.2
Output saturation voltage	V _{CE}	—	1.2	1.6	V	I _o Sum of high and low side output transistor voltages with I _o = 200 mA	Fig.2

● Input truth table

3pin (IN)	1pin (IN)	7pin (OUT)	9pin (OUT)
H	L	L	H
L	H	H	L
H	H	L	L
L	L	OPEN	OPEN

Note : HIGH level input is 2.0 V or more.
 LOW level input is 0.8 V or less.

● Internal circuit configuration

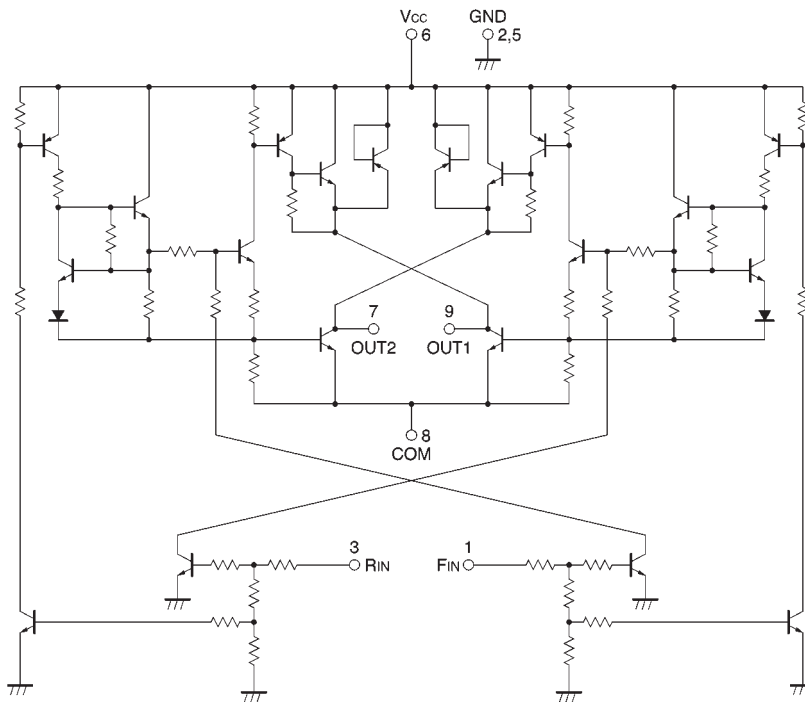


Fig.1

● Measurement circuit

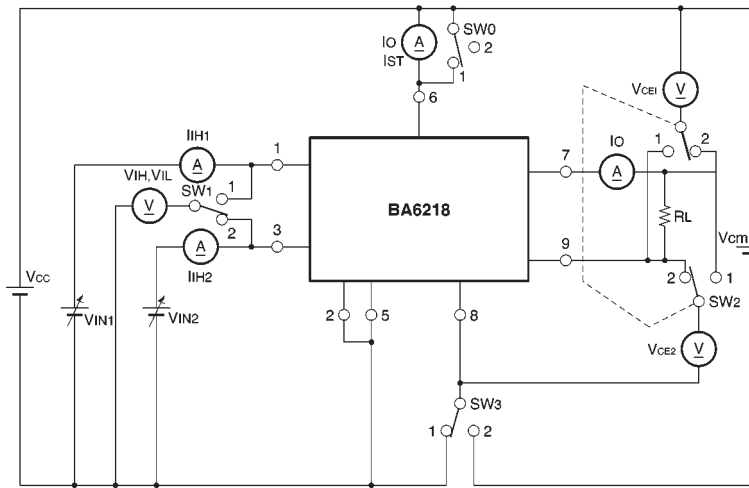


Fig.2

● Application examples

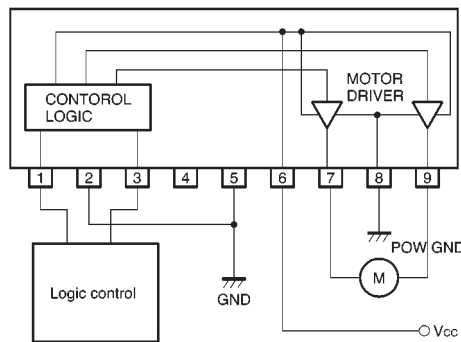


Fig.3

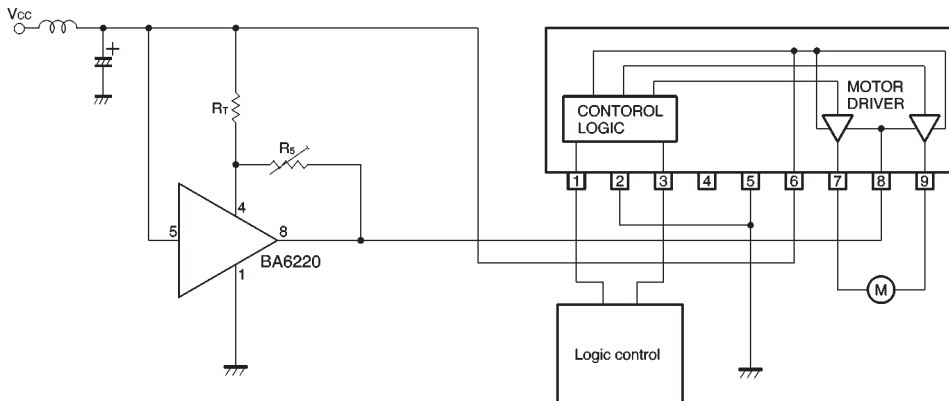


Fig.4

● External dimensions (Units: mm)

