

# 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 <sub>CC</sub>	18	V
Power dissipation	P <sub>d</sub>	800*	mW
Operating temperature	T <sub>opr</sub>	-20~+60	°C
Storage temperature	T <sub>stg</sub>	-55~+125	°C
Maximum output current	I <sub>o</sub>	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 <sub>CC</sub> (pin 6) and GND (pins 2 and 5)	4.5	—	15	V
Voltage applied between V <sub>CC</sub> (pin 6) and COM (pin 8)	4.0	—	15	V

### ● Electrical characteristics (unless otherwise noted, Ta = 25°C, V<sub>CC</sub> = 9V)

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

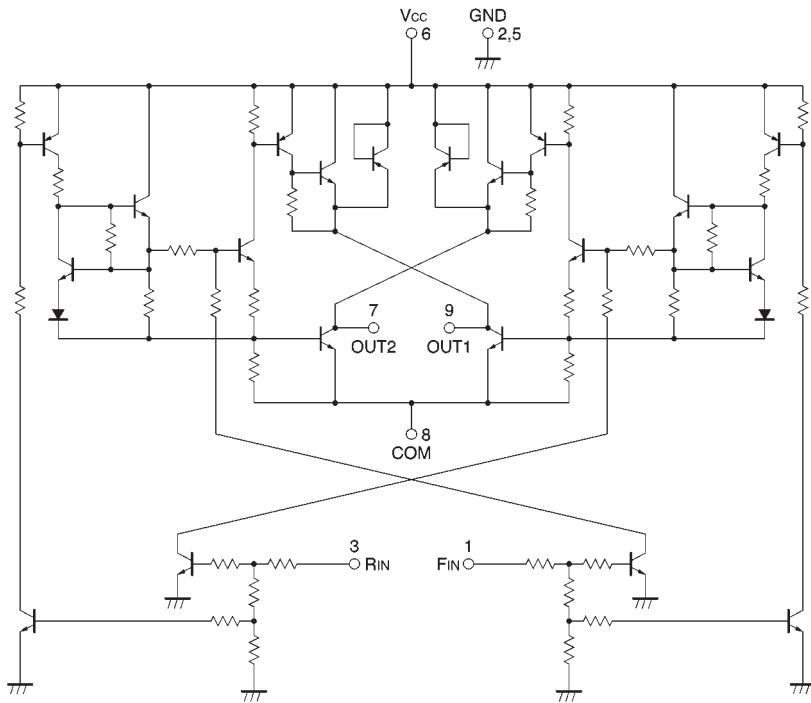


Fig.1

● Measurement circuit

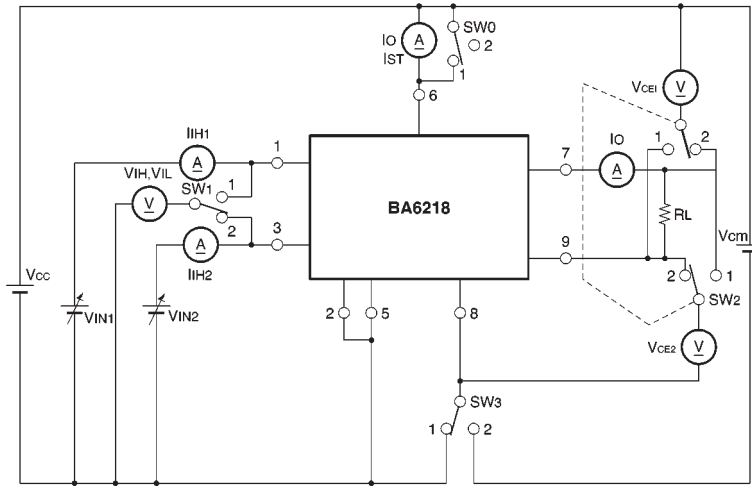


Fig.2

● Application examples

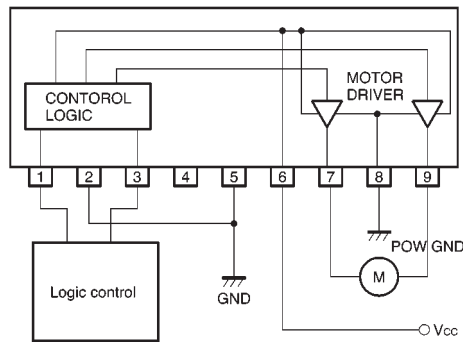


Fig.3

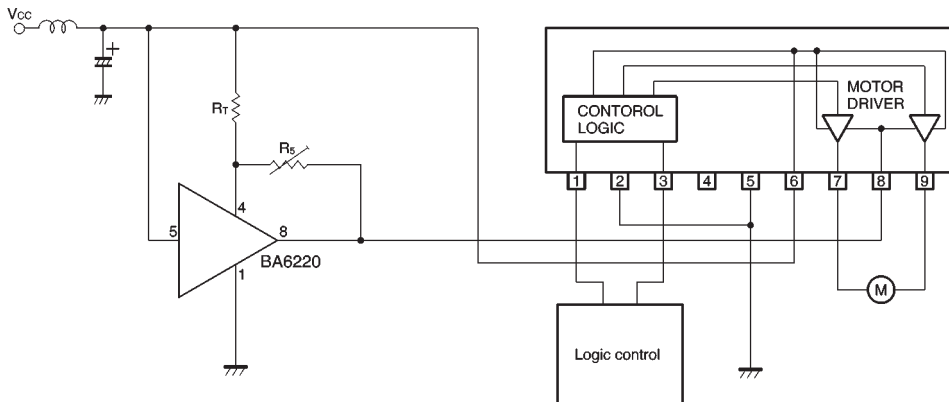
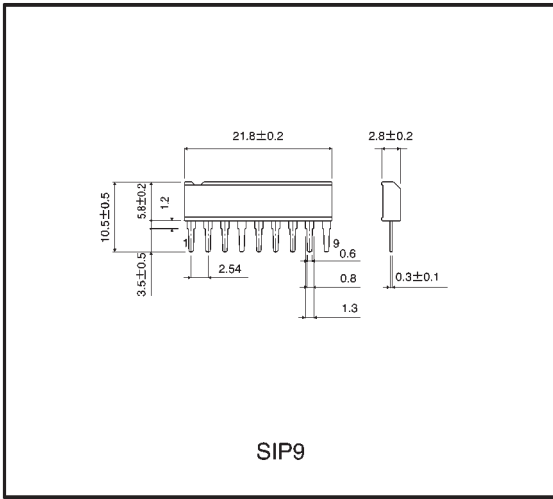


Fig.4

● External dimensions (Units: mm)



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