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 governer, 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 dissapation	Pd	800*	mW
Operating temperature	Topr	−20～+60	℃
Storage temperature	Tstg	−55～+125	℃
Maximum output current	I_O	0.7	A

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

●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_{Q1}	18	34	50	mA	1pin "H",3pin "L" or 1pin "L",3pin "H",R_L=∞	Fig.2
Supply current 2	I_{Q2}	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

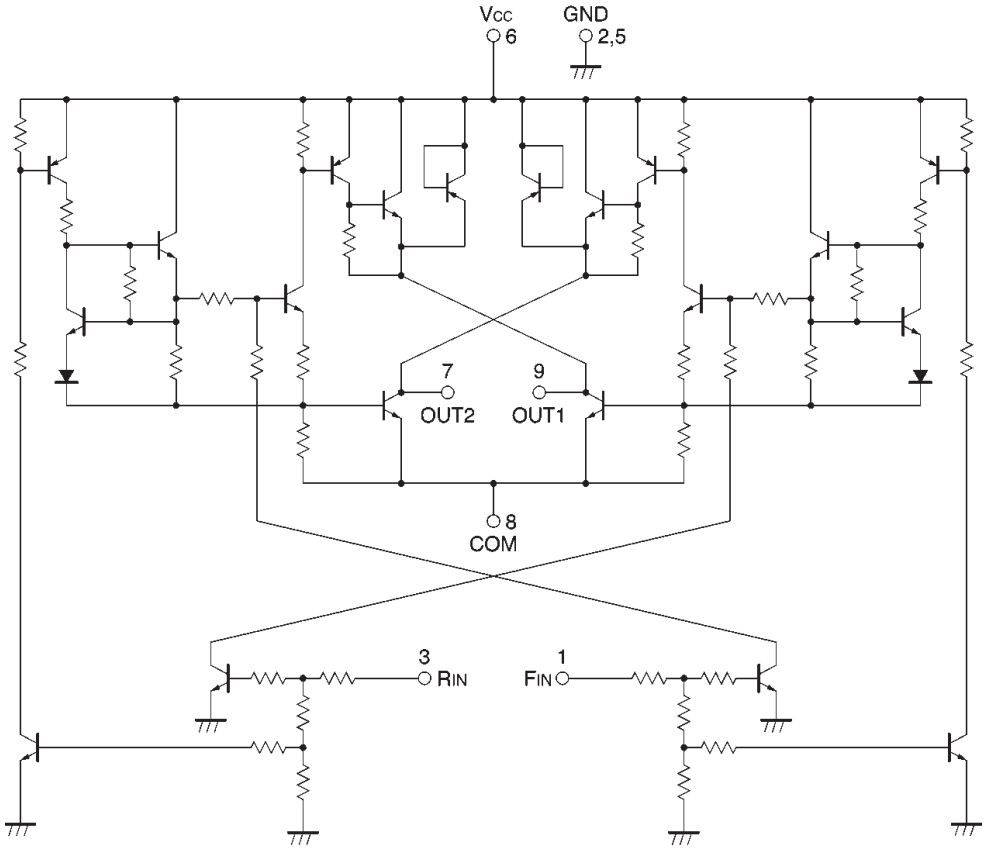


Fig.1

●Measurement circuit

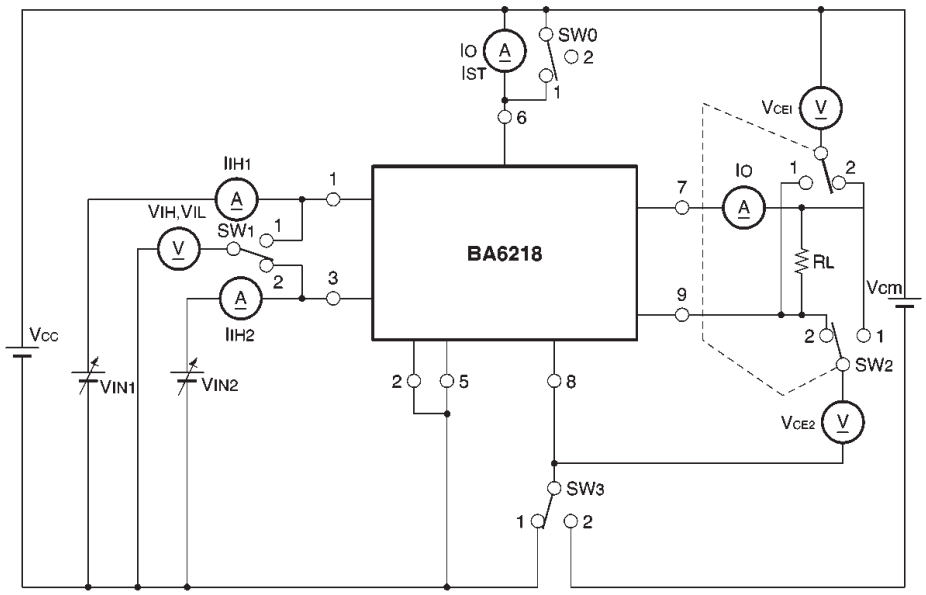


Fig.2

●Application examples

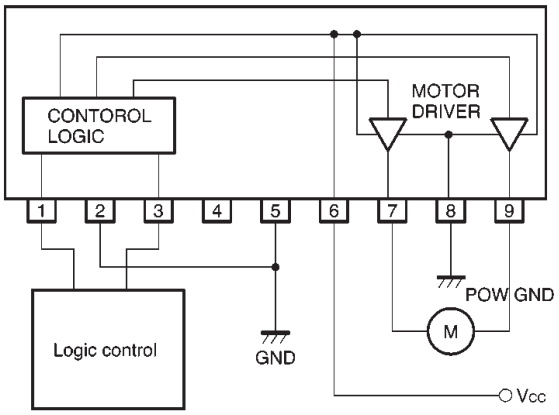


Fig.3

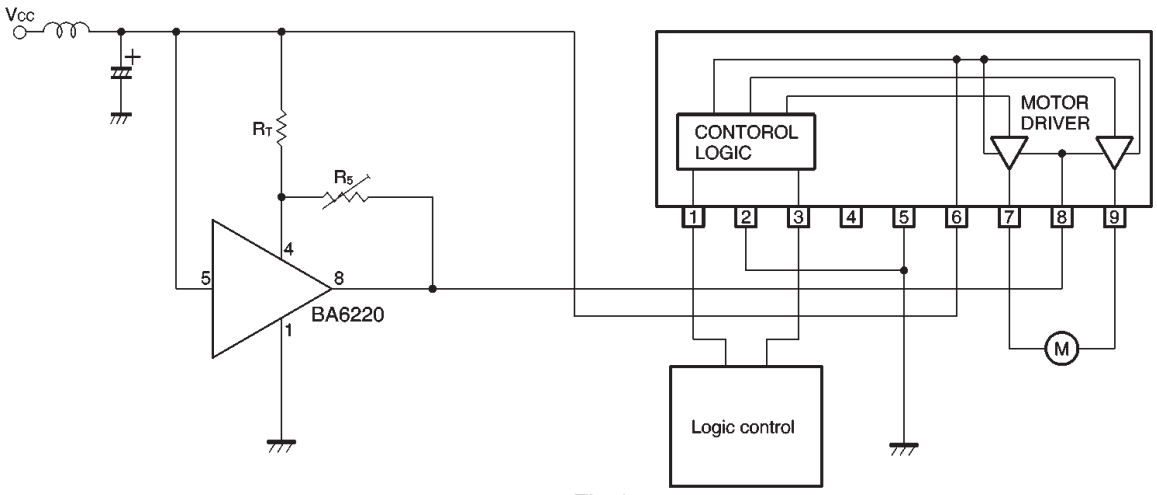
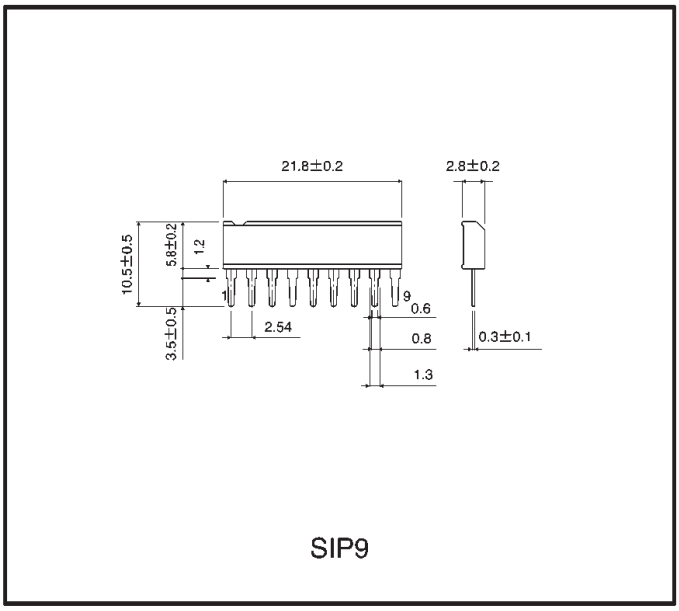


Fig.4

●External dimensions (Units: mm)



SIP9