

# Reversible motor driver

## BA6208/BA6208F

The BA6208 and BA6208F are monolithic ICs used for driving reversible motors. They allow control of reversible motors in cassette players and other electrical equipment by using TTL-level logic signals.

The ICs contain a logic section, which controls forward and reverse rotations as well as forced stop, and an output power section, which can supply an output current of up to 100mA (typical) according to the logic control.

### ●Features

- 1) Motor driving power transistors are built in (100mA typically).
- 2) Brake is applied when stopping the motor (when inputs A and B are both HIGH level).
- 3) Built-in diode to absorb surge currents.
- 4) Very low standby circuit current when inputs A and B are both LOW level.
- 5) Wide range of operating supply voltage (4.5 ~ 15.0V).
- 6) Direct control with the TTL logic.

### ●Absolute maximum ratings (Ta=25°C)

Parameter		Symbol	Limits	Unit
Power supply voltage		V <sub>cc</sub>	18	V
Power dissipation	BA6208	P <sub>d</sub>	700*1	mW
	BA6208F	P <sub>d</sub>	450*2	
Operating temperature		T <sub>opr</sub>	-20~60	°C
Storage temperature		T <sub>stg</sub>	-55~125	°C
Maximum output current		I <sub>out</sub>	500	mA

\*1 Reduce power by 7 mW for each degree above 25°C.

\*2 Reduce power by 4.5 mW for each degree above 25°C.

### ●Recommended operating conditions (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power supply voltage	V <sub>cc</sub>	4.5	—	15	V

### ●Input/output truth table

3pin (Ain)	2pin (Bin)	8pin (Aout)	7pin (Bout)
H	L	H	L
L	H	L	H
H	H	L	L
L	L	OPEN	OPEN

Note : HIGH level input is 2.0 V or more

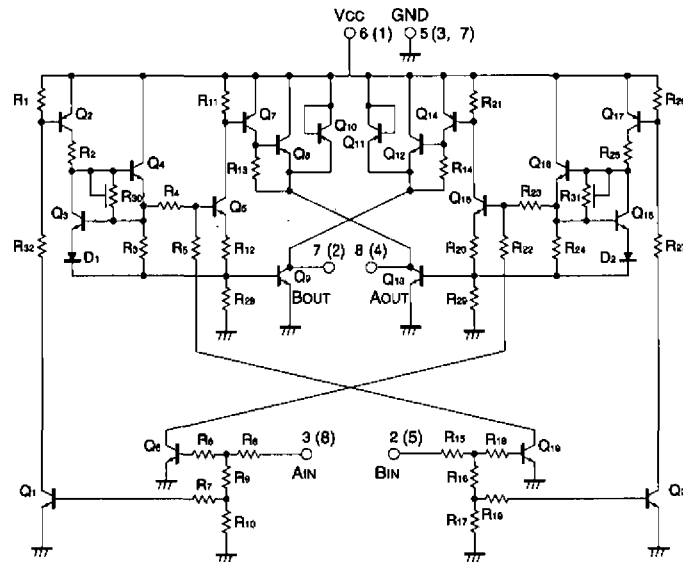
LOW level input is 0.8 V or less

● Electrical characteristics (unless otherwise noted, Ta=25°C and Vcc=9V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Output current	Io	200	—	—	mA	
Output saturation voltage	VCE	—	—	1.6	V	Io=100mA
HIGH level input voltage	VIH	2.0	—	—	V	
LOW level input voltage	VIL	—	—	0.8	V	
Standby circuit current	Ist	—	—	0.4	mA	When inputs A and B are both LOW level
HIGH level input current	IIH	—	—	400	μA	VIH=4.5V

A diode that absorbs at least 500 mA is built in to give protection against surge currents with a pulse width of 10 ms and a duty ratio of 10% or less.

● Equivalent circuit diagram



Note : Figures in parentheses are for the BA6208F

● External dimensions (Units: mm)

Fig.1

