

**REVERSIBLE MOTOR DRIVER****AZ6208B****General Description**

The AZ6208B is a monolithic integrated circuit used for driving reversible motors. It can control reversible motors in cassette players and other electrical equipment by using TTL-level logic signals.

The IC contains 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 (Typ.) according to the logic control.

The AZ6208B is available in SIP-9 and SOIC-8 Package.

Features

- Built-in Motor Driving Power Transistors (Typ. 100mA)
- Brake is Applied When Stopping the Motor (When Input A and B are Both HIGH Level)
- Built-in Diode to Absorb Surge Currents
- Very Low Standby Circuit Current When Input A and B are Both LOW Level
- Wide Range of Operating Supply Voltage (4.5 to 15.0V)
- Direct Control with the TTL Logic

Applications

- DVD Player

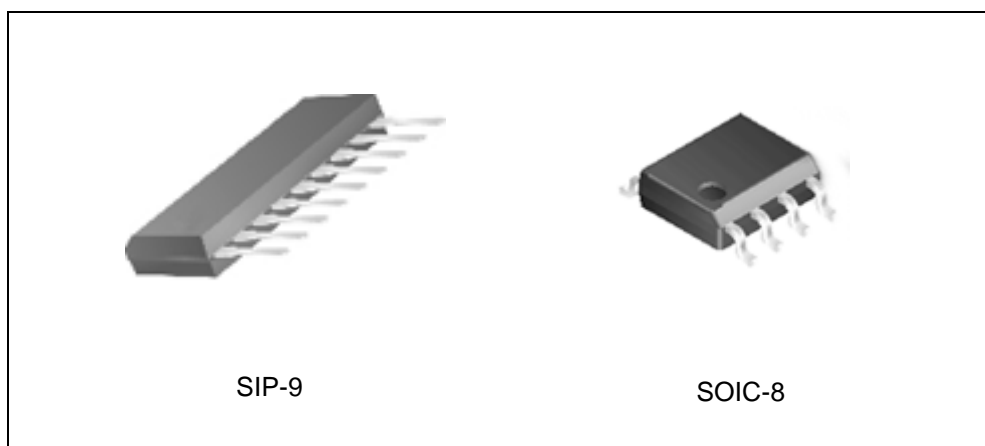


Figure 1. Package Types of AZ6208B



REVERSIBLE MOTOR DRIVER

AZ6208B

Pin Configuration

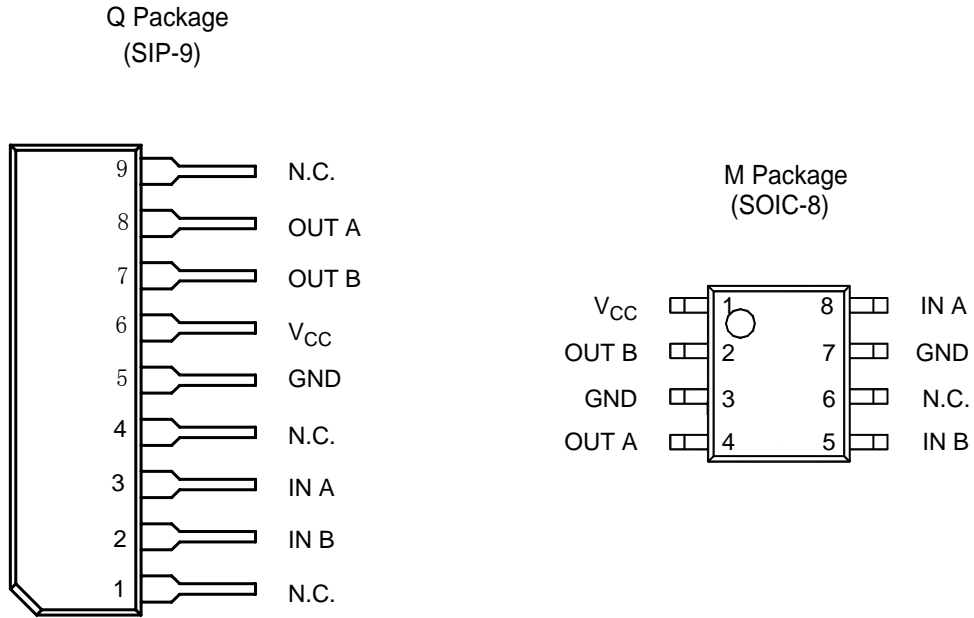


Figure 2. Pin Configurations of AZ6208B (Top View)

Pin Description

Pin Number		Pin Name	Function
SIP-9 Package	SOIC-8 Package		
1		N.C.	Nothing Connected
2	5	IN B	Input B
3	8	IN A	Input A
4	6	N.C.	Nothing Connected
5	3, 7	GND	Ground
6	1	V _{CC}	Supply Voltage
7	2	OUT B	Output B
8	4	OUT A	Output A
9		N.C.	Nothing Connected



REVERSIBLE MOTOR DRIVER

AZ6208B

Functional Block Diagram

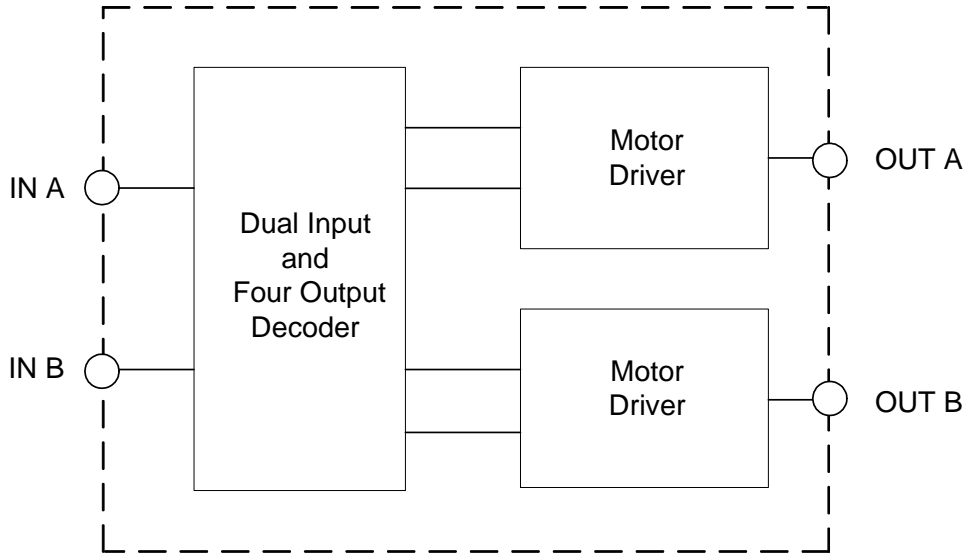


Figure 3. Functional Block Diagram of AZ6208B



REVERSIBLE MOTOR DRIVER

AZ6208B

Internal Circuit Configuration

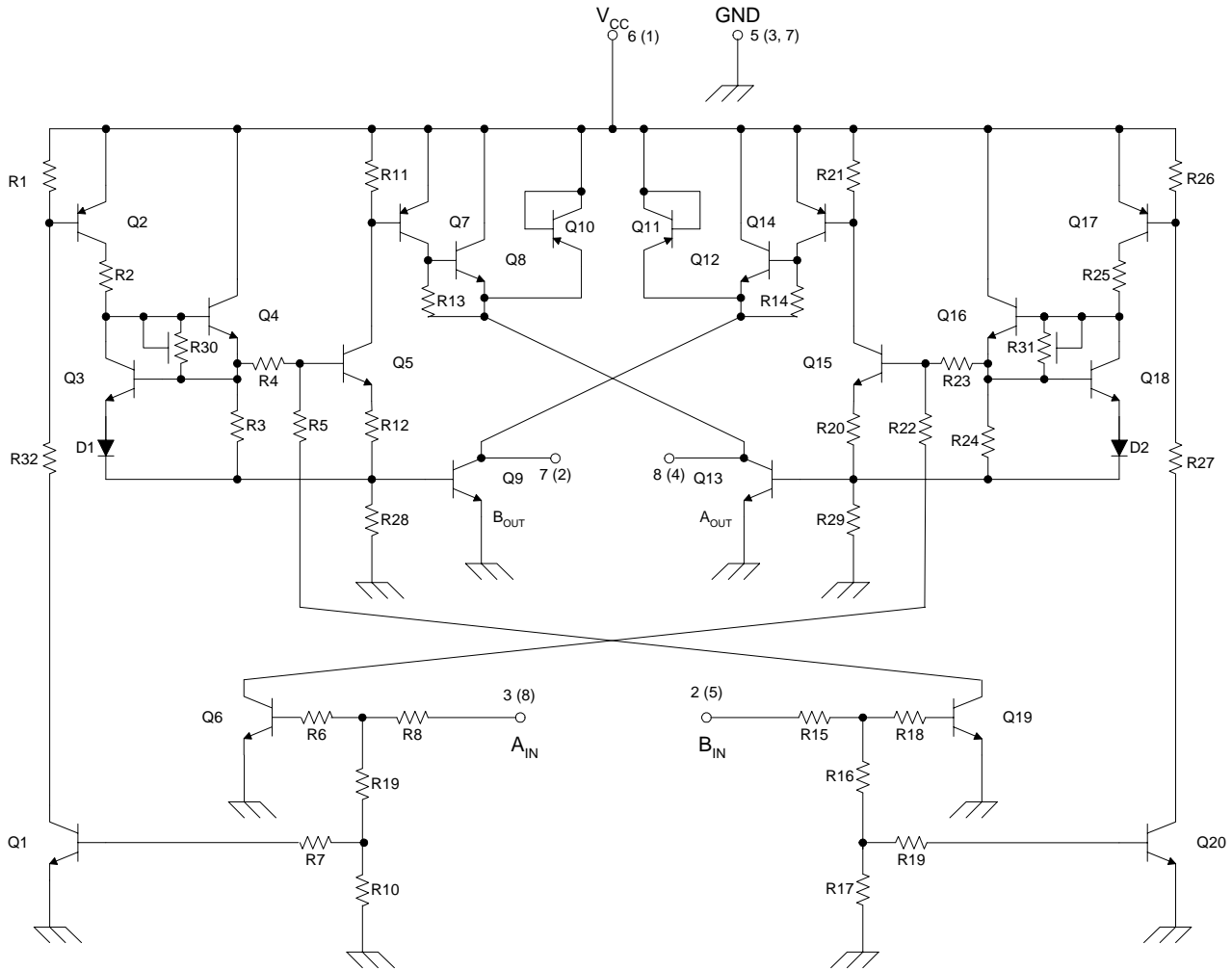


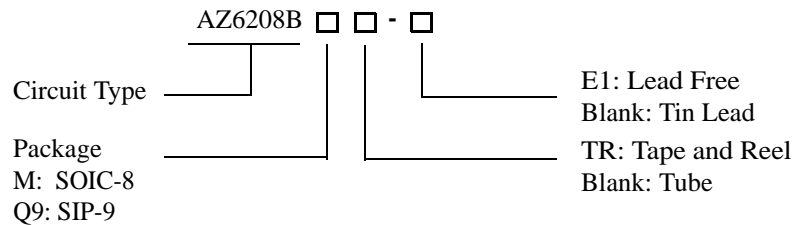
Figure 4. Internal Circuit Configuration of AZ6208B (Figures in parentheses are for SOIC-8 package)



REVERSIBLE MOTOR DRIVER

AZ6208B

Ordering Information



Package	Temperature Range	Part Number		Marking ID		Packing Type
		Tin Lead	Lead Free	Tin Lead	Lead Free	
SOIC-8	0 to 70°C	AZ6208BM	AZ6208BM-E1	6208BM	6208BM-E1	Tube
		AZ6208BMTR	AZ6208BMTR-E1	6208BM	6208BM-E1	Tape & Reel
SIP-9	0 to 70°C	AZ6208BQ9	AZ6208BQ9-E1	AZ6208BQ9	AZ6208BQ9-E1	Tube

BCD Semiconductor's Pb-free products, as designated with "E1" suffix in the part number, are RoHS compliant.

Absolute Maximum Ratings (Note 1)

Parameter	Symbol	Value	Unit
Supply Voltage	V_{CC}	18	V
Maximum Motor Current	I_{OUT}	500	mA
Power Dissipation	P_D	700 (Note 2, 3)	mW
Storage Temperature Range	T_{STG}	-55 to 150	°C

Note 1: Stresses greater than those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated under "Recommended Operating Conditions" is not implied. Exposure to "Absolute Maximum Ratings" for extended periods may affect device reliability.

Note 2: Power dissipation is reduced by 7 mW for each increase in T_A of 1°C over 25°C.

Note 3: Only apply for SOIC-8 package.

Recommended Operating Conditions

Parameter	Symbol	Min	Max	Unit
Supply Voltage	V_{CC}	4.5	15	V
Operating Temperature	T_A	0	70	°C

**REVERSIBLE MOTOR DRIVER****AZ6208B****Electrical Characteristics**

($V_{CC}=9V$, $T_A=25^{\circ}C$, unless otherwise specified.)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Output Current	I_O		200			mA
Output Saturation Voltage	V_{CE}	$I_O=100mA$			1.6	V
Input High Level Voltage	V_{IH}		2.0			V
Input Low Level Voltage	V_{IL}				0.8	V
Standby Supply Current	I_{ST}	When input A and B are both low level			0.4	mA
Input High Level Current	I_{IH}	$V_{IH}=4.5V$			400	μA

Input and Output Truth Table (Note 4)

IN A	IN B	OUT A	OUT B
H	L	H	L
L	H	L	H
H	H	L	L
L	L	OPEN	OPEN

Note 4: High level input is 2.0V or more.
Low level input is 0.8V or less.



REVERSIBLE MOTOR DRIVER

AZ6208B

Typical Application

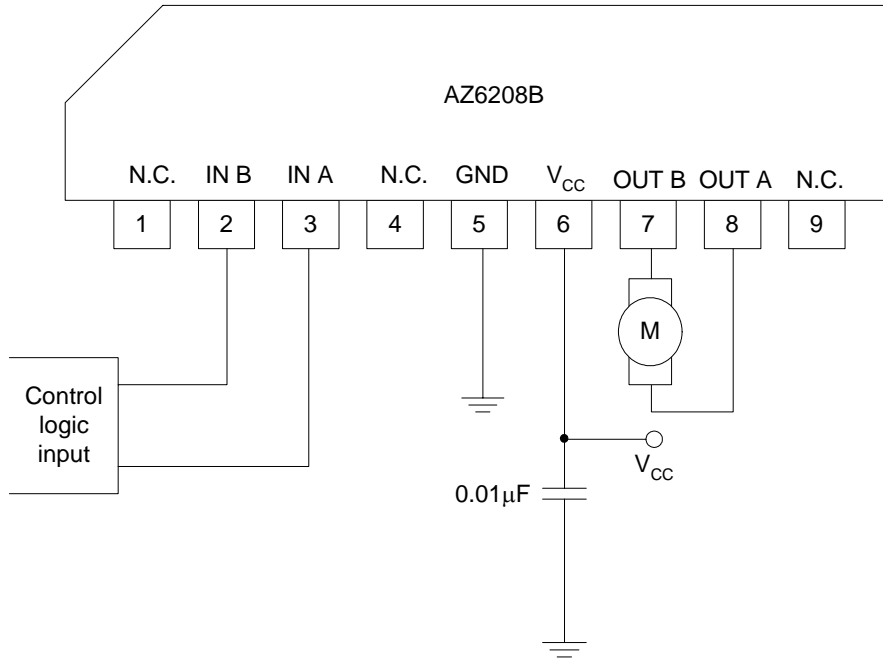


Figure 5. Typical Application of AZ6208B



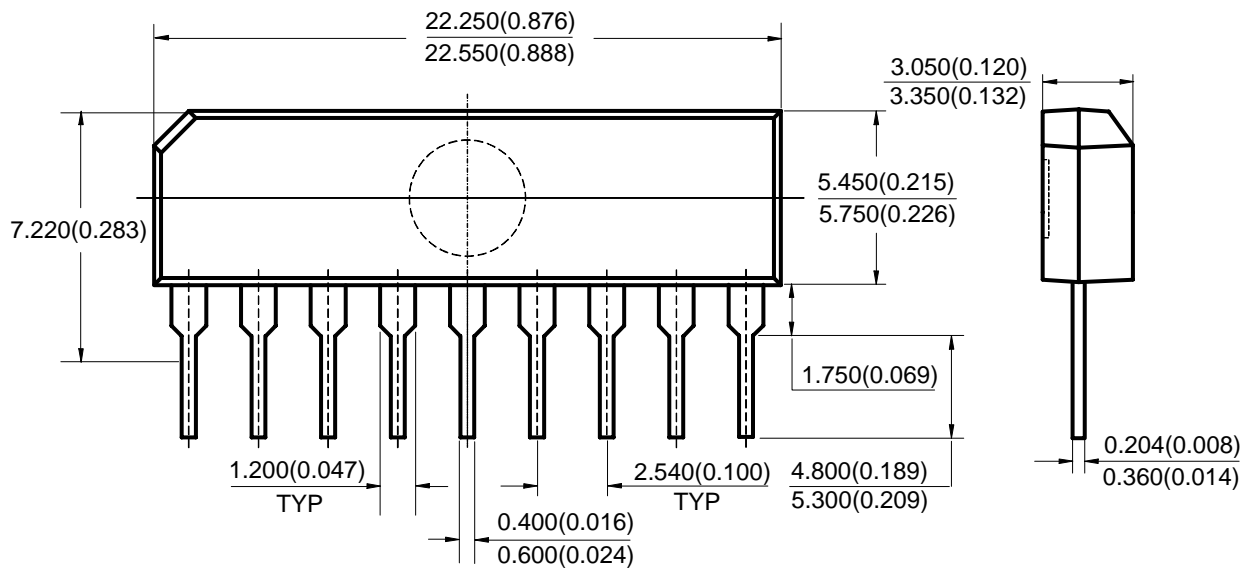
REVERSIBLE MOTOR DRIVER

AZ6208B

Mechanical Dimensions

SIP-9

Unit: mm(inch)





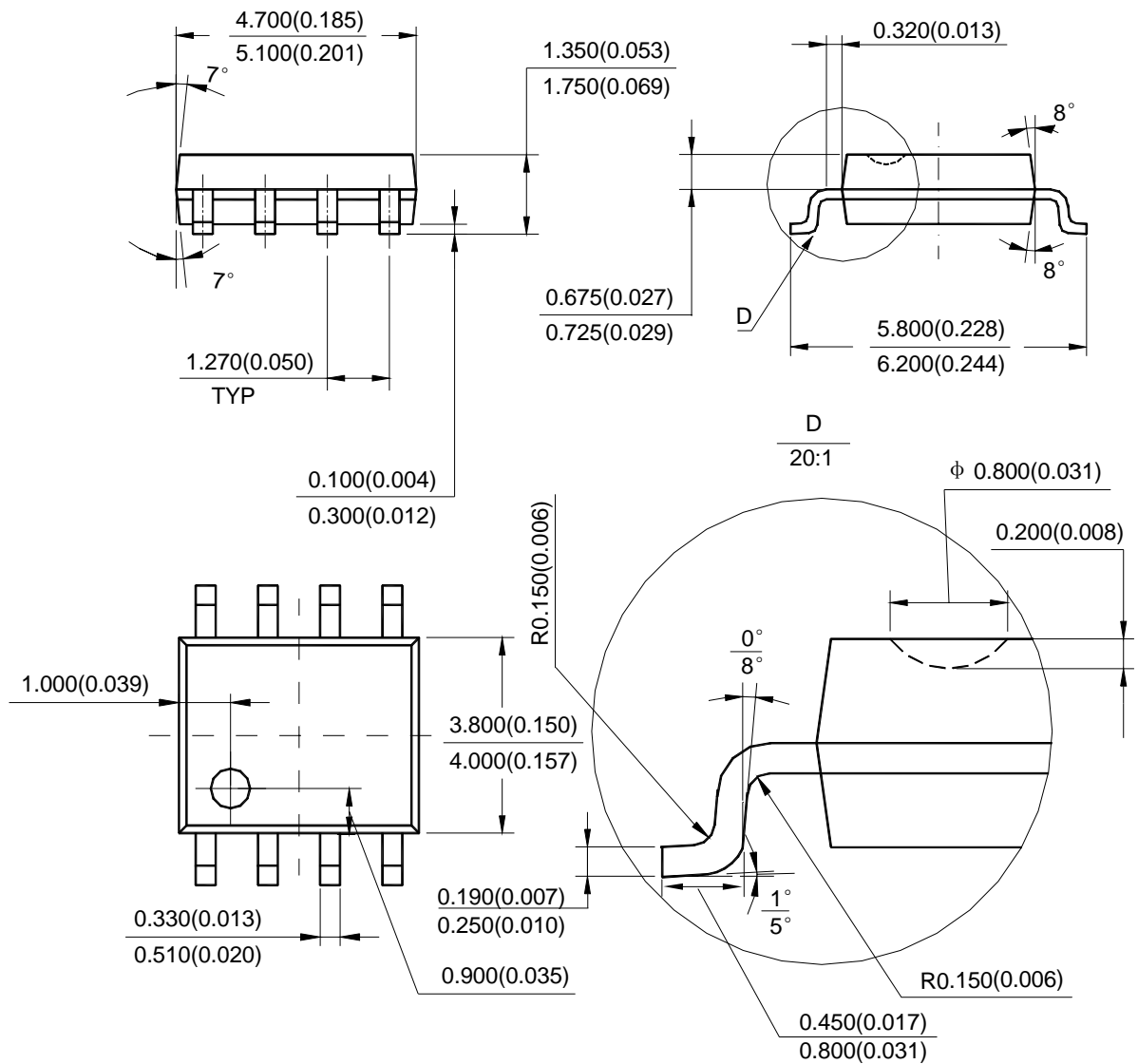
REVERSIBLE MOTOR DRIVER

AZ6208B

Mechanical Dimensions (Continued)

SOIC-8

Unit: mm(inch)





BCD Semiconductor Manufacturing Limited

<http://www.bcdsemi.com>

IMPORTANT NOTICE

BCD Semiconductor Manufacturing Limited reserves the right to make changes without further notice to any products or specifications herein. BCD Semiconductor Manufacturing Limited does not assume any responsibility for use of any its products for any particular purpose, nor does BCD Semiconductor Manufacturing Limited assume any liability arising out of the application or use of any its products or circuits. BCD Semiconductor Manufacturing Limited does not convey any license under its patent rights or other rights nor the rights of others.

MAIN SITE

BCD Semiconductor Manufacturing Limited
- Wafer Fab
Shanghai SIM-BCD Semiconductor Manufacturing Limited
800, Yi Shan Road, Shanghai 200233, China
Tel: +86-21-6485 1491, Fax: +86-21-5450 0008

BCD Semiconductor Manufacturing Limited
- IC Design Group
Advanced Analog Circuits (Shanghai) Corporation
8F, Zone B, 900, Yi Shan Road, Shanghai 200233, China
Tel: +86-21-6495 9539, Fax: +86-21-6485 9673

REGIONAL SALES OFFICE

Shenzhen Office
Shanghai SIM-BCD Semiconductor Manufacturing Co., Ltd. Shenzhen Office
Advanced Analog Circuits (Shanghai) Corporation Shenzhen Office
Room E, 5F, Noble Center, No.1006, 3rd Fuzhong Road, Futian District, Shenzhen 518026, China
Tel: +86-755-8826 7951
Fax: +86-755-8826 7865

Taiwan Office
BCD Semiconductor (Taiwan) Company Limited
4F, 298-1, Rui Guang Road, Nei-Hu District, Taipei,
Taiwan
Tel: +886-2-2656 2808
Fax: +886-2-2656 2806

USA Office
BCD Semiconductor Corporation
30920 Huntwood Ave. Hayward,
CA 94544, U.S.A
Tel : +1-510-324-2988
Fax: +1-510-324-2788