

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

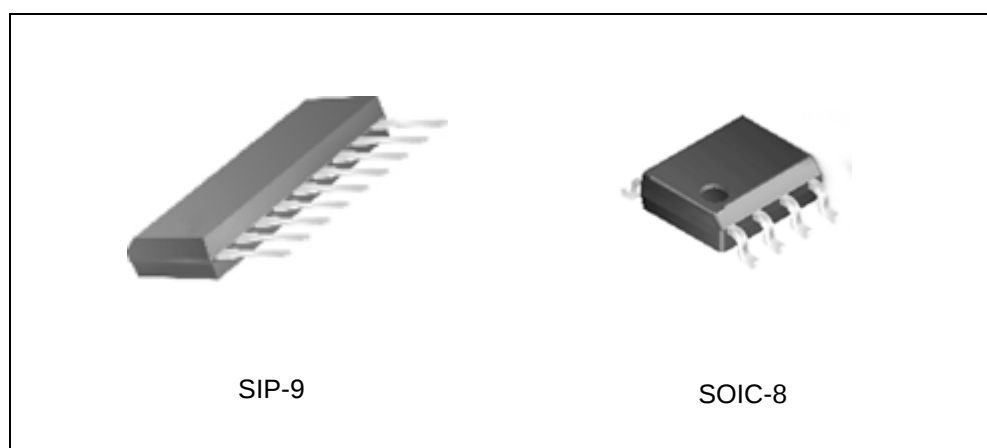


Figure 1. Package Types of AZ6208B

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Pin Configuration

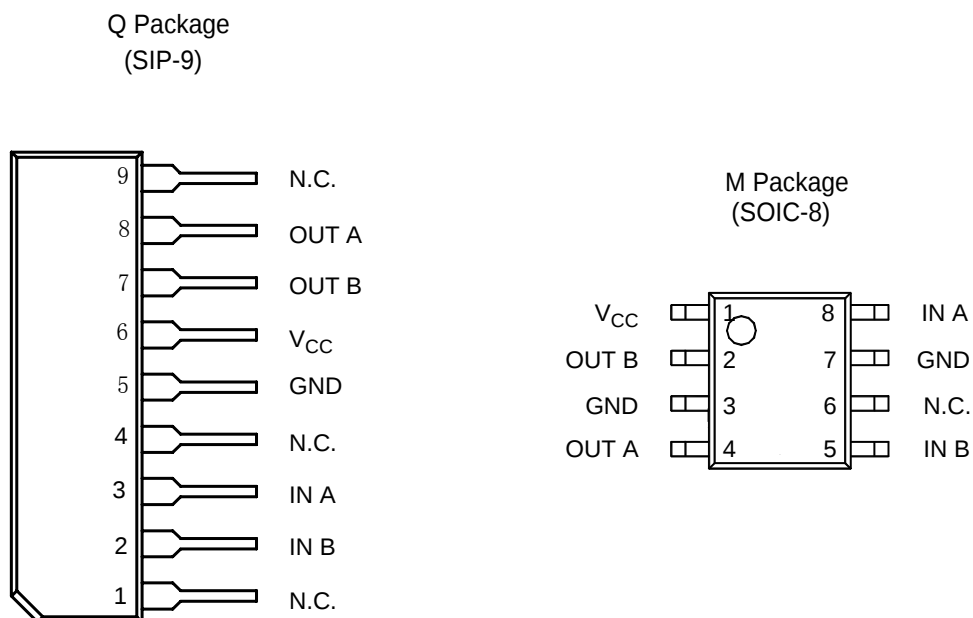


Figure 2. Pin Configurations of AZ6208B (Top View)

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

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Functional Block Diagram

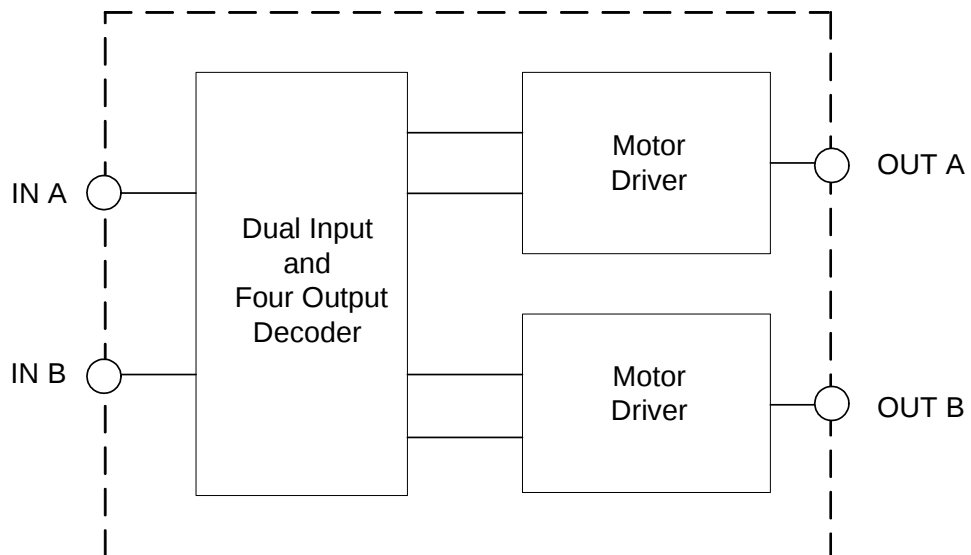


Figure 3. Functional Block Diagram of AZ6208B



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Internal Circuit Configuration

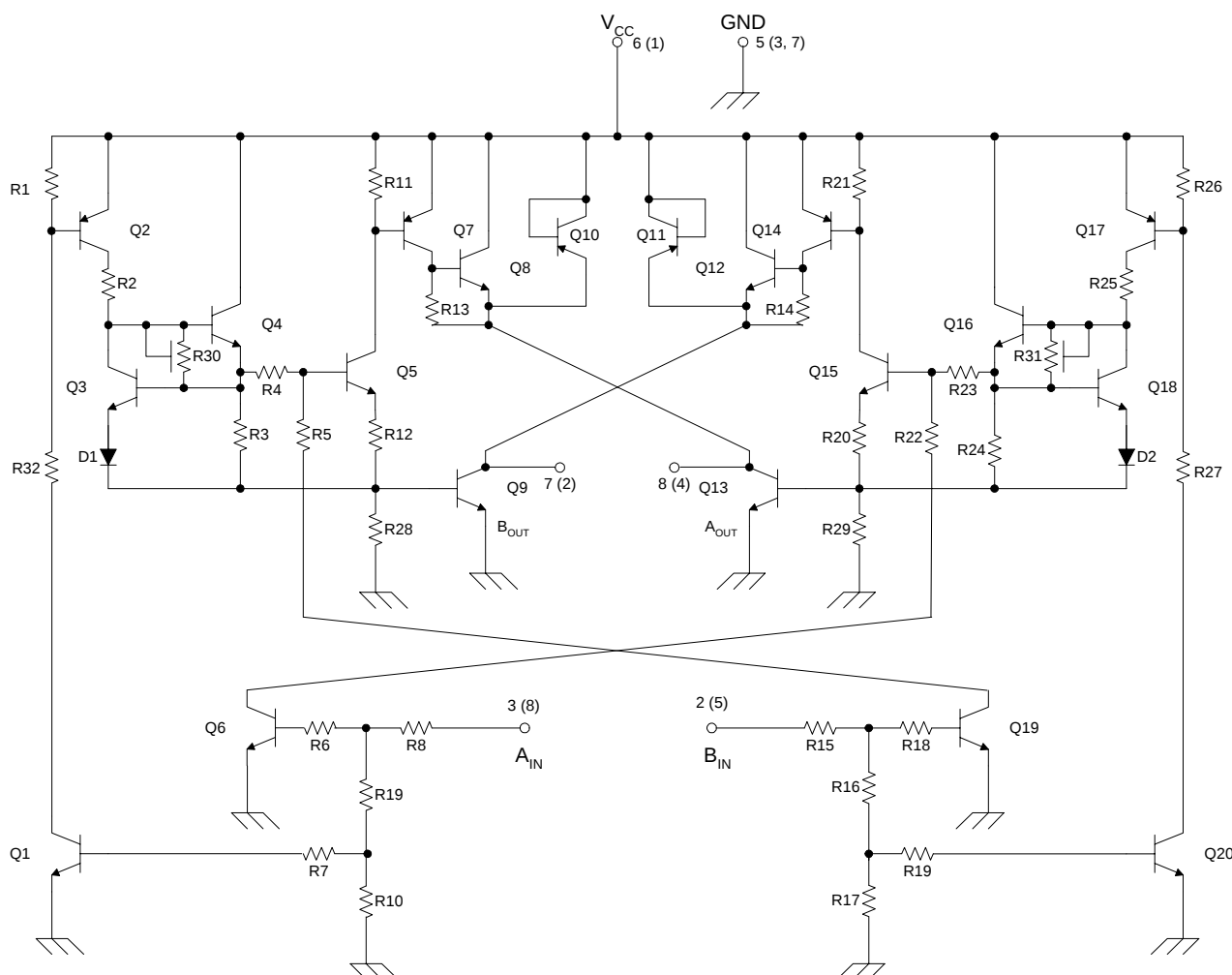
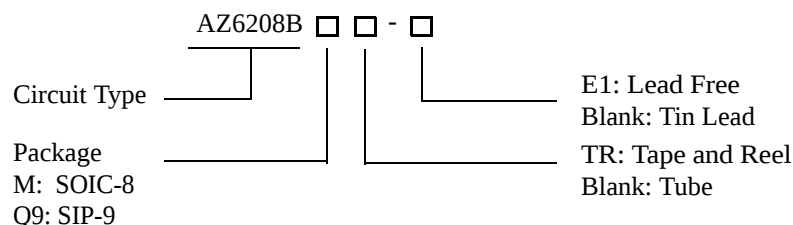


Figure 4. Internal Circuit Configuration of AZ6208B (Figures in parentheses are for SOIC-8 package)

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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

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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.

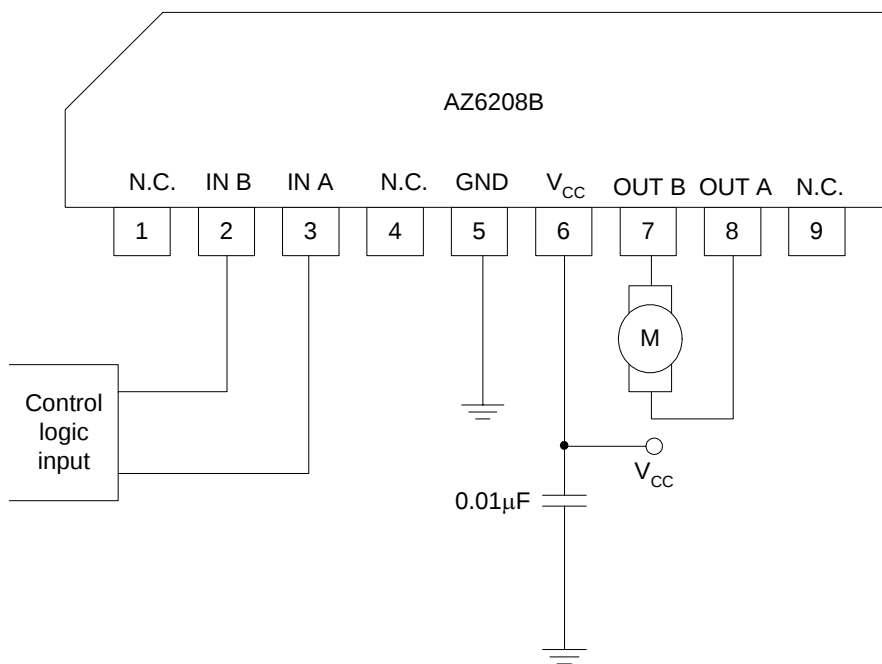
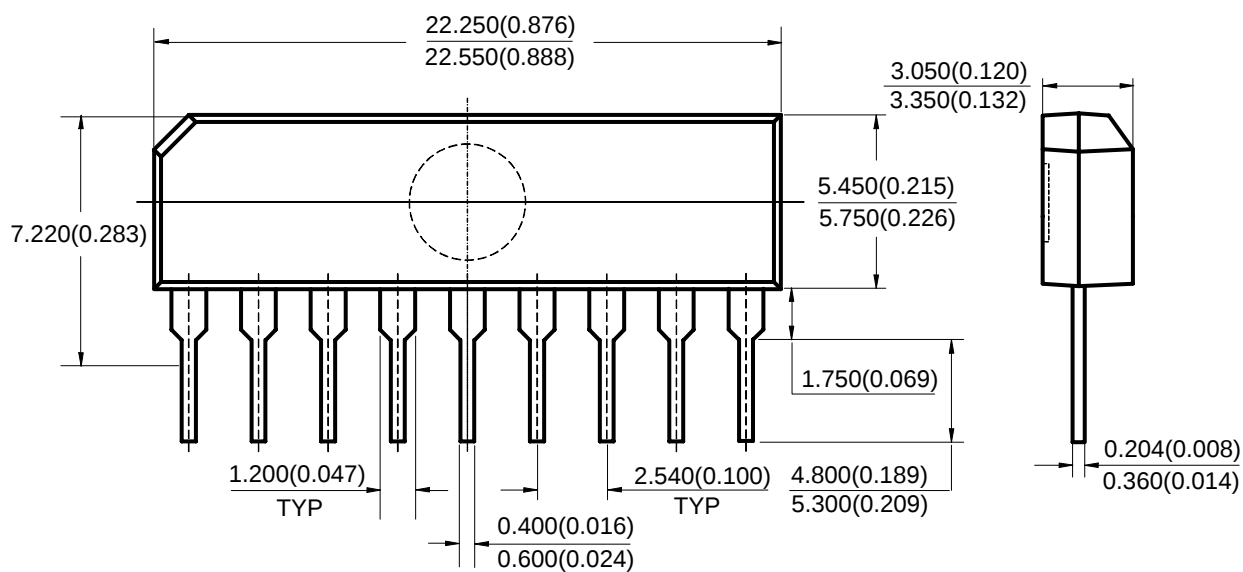
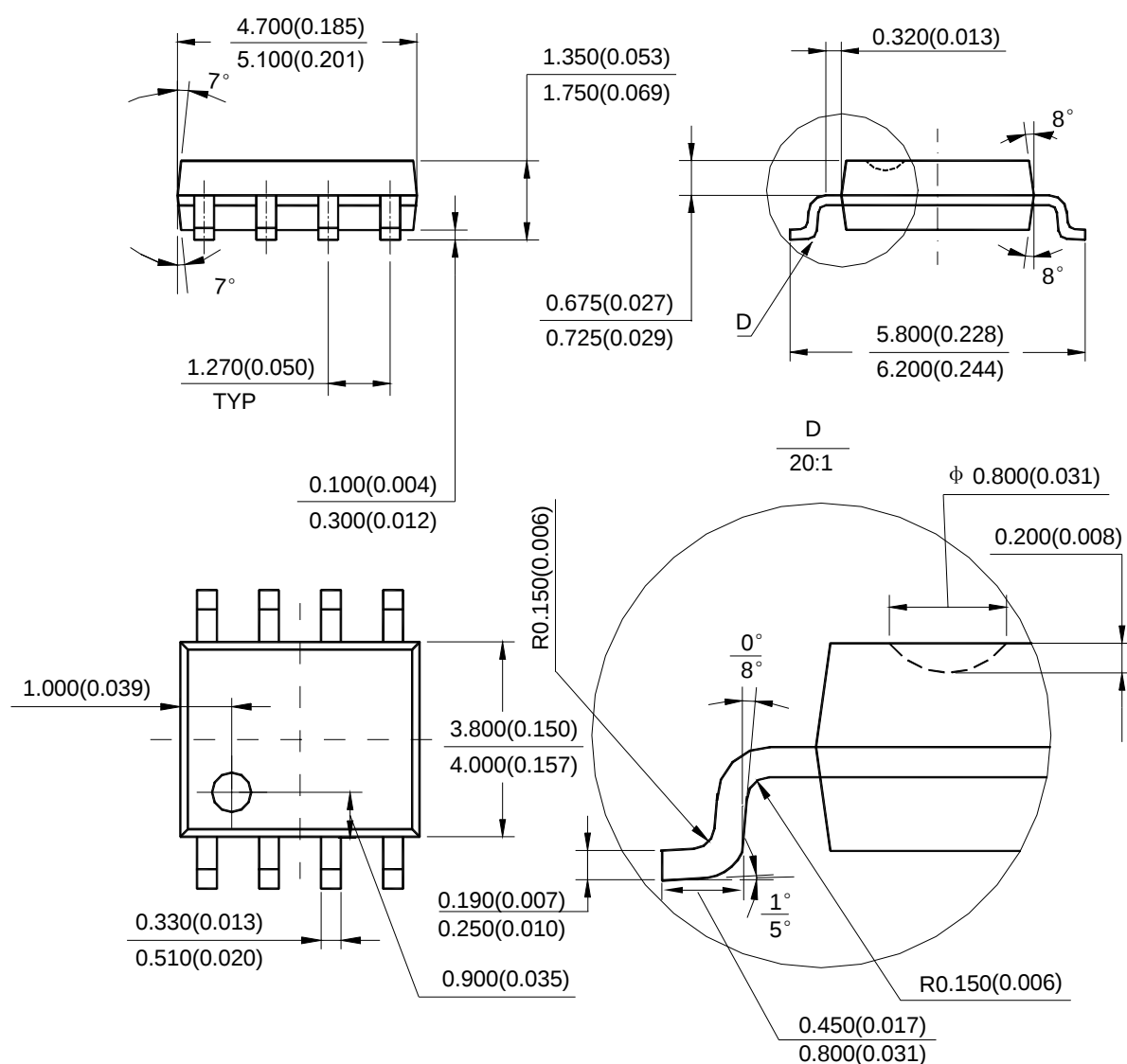
**REVERSIBLE MOTOR DRIVER****AZ6208B****Typical Application**

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)**



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