

**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

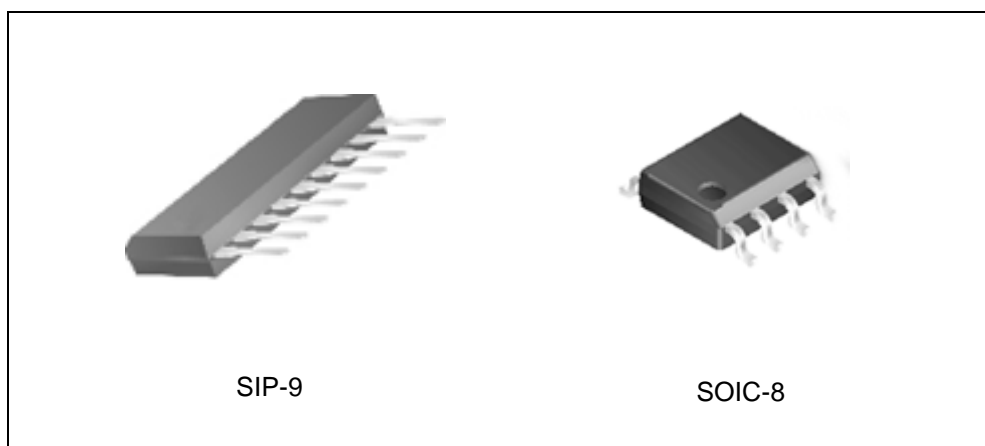


Figure 1. Package Types of AZ6208B



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Pin Configuration

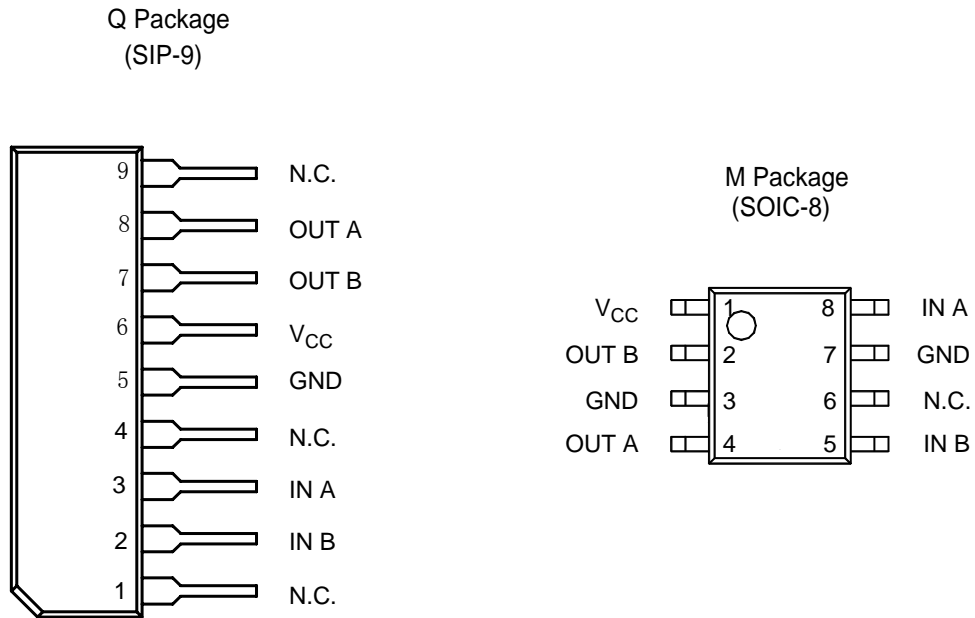


Figure 2. Pin Configurations of AZ6208B (Top View)

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

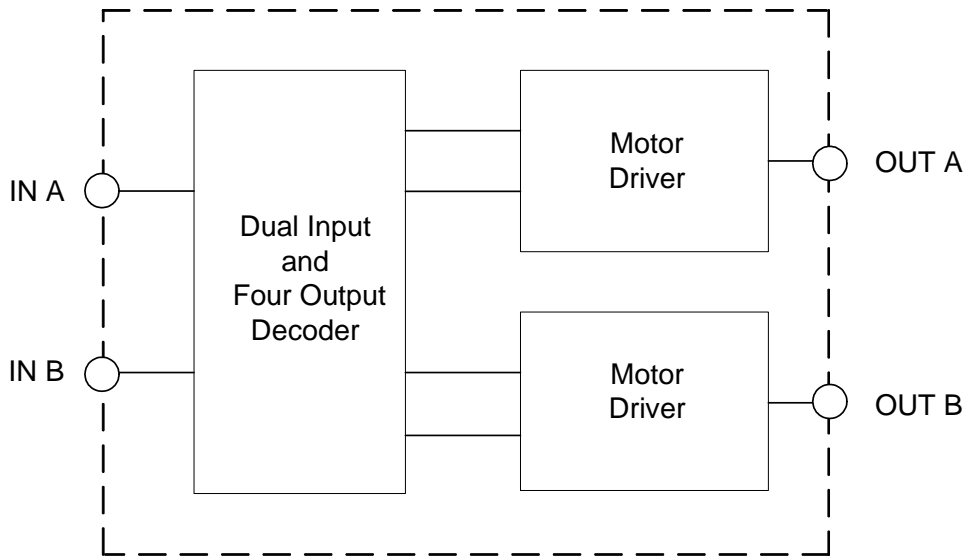


Figure 3. Functional Block Diagram of AZ6208B



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Internal Circuit Configuration

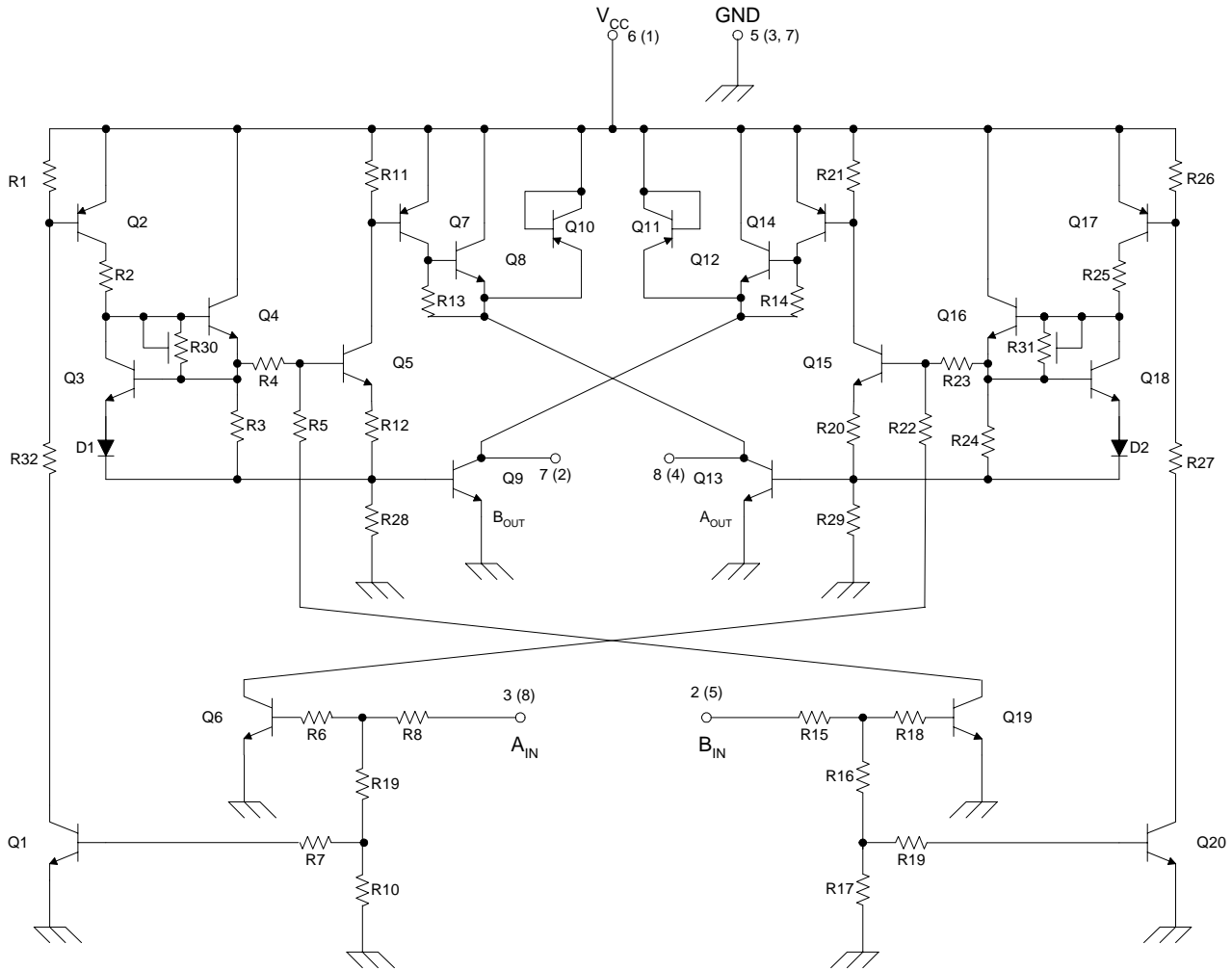


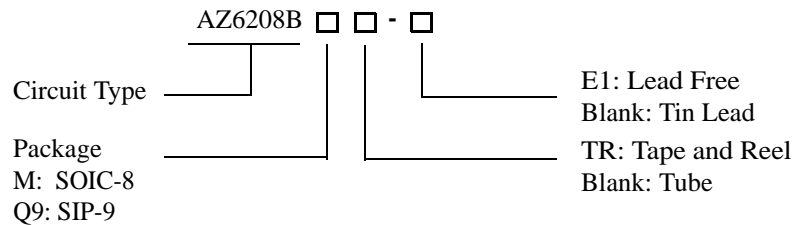
Figure 4. Internal Circuit Configuration of AZ6208B (Figures in parentheses are for SOIC-8 package)



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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 |

**REVERSIBLE MOTOR DRIVER****AZ6208B****Electrical Characteristics** $(V_{CC}=9V, T_A=25^{\circ}C, \text{ unless otherwise specified.})$

| 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.



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Typical Application

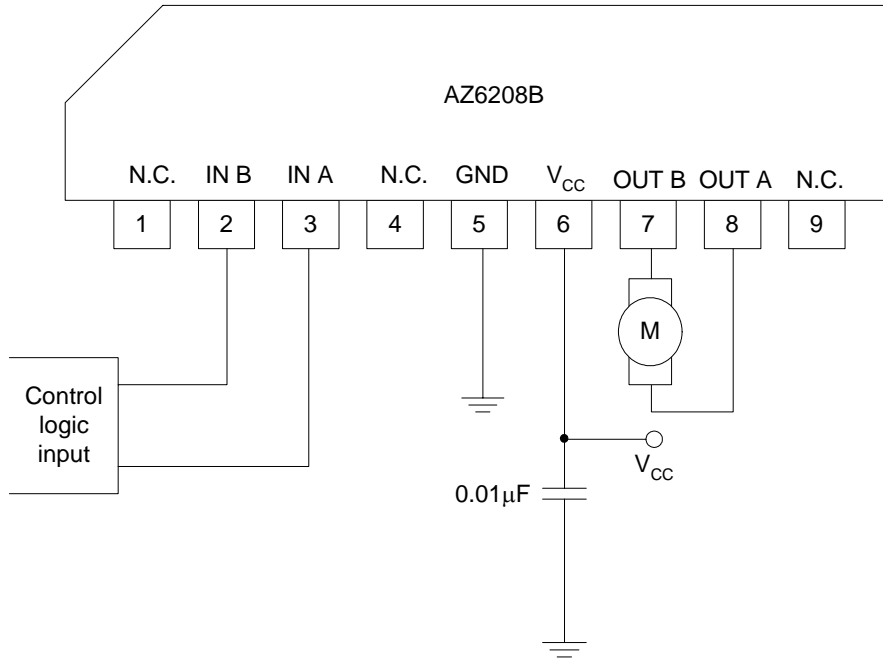


Figure 5. Typical Application of AZ6208B



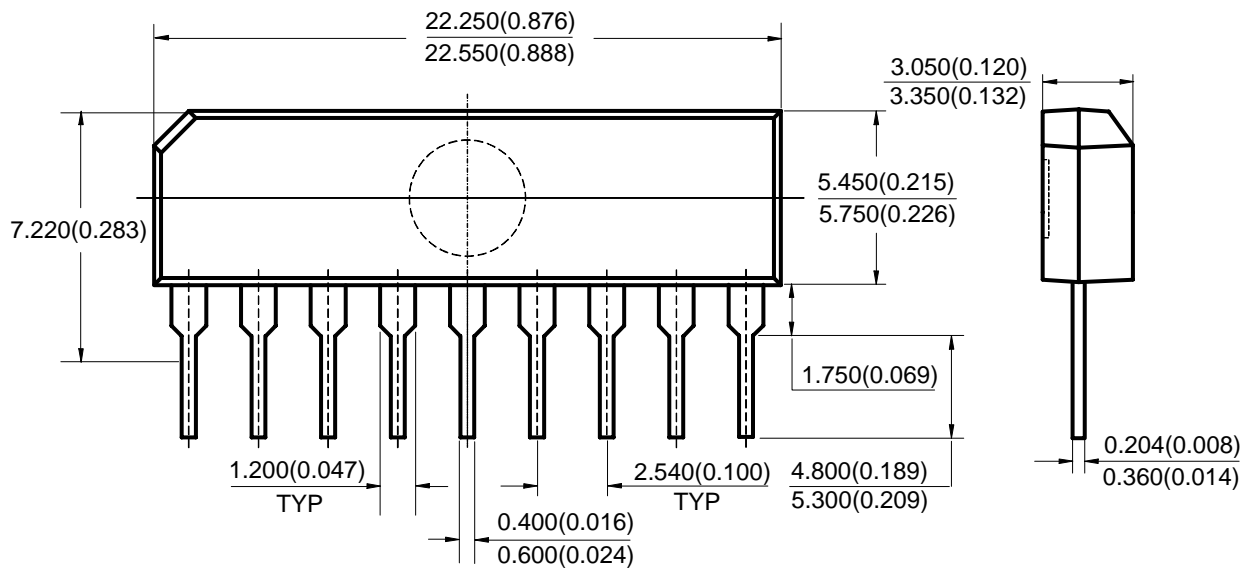
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Mechanical Dimensions

SIP-9

Unit: mm(inch)





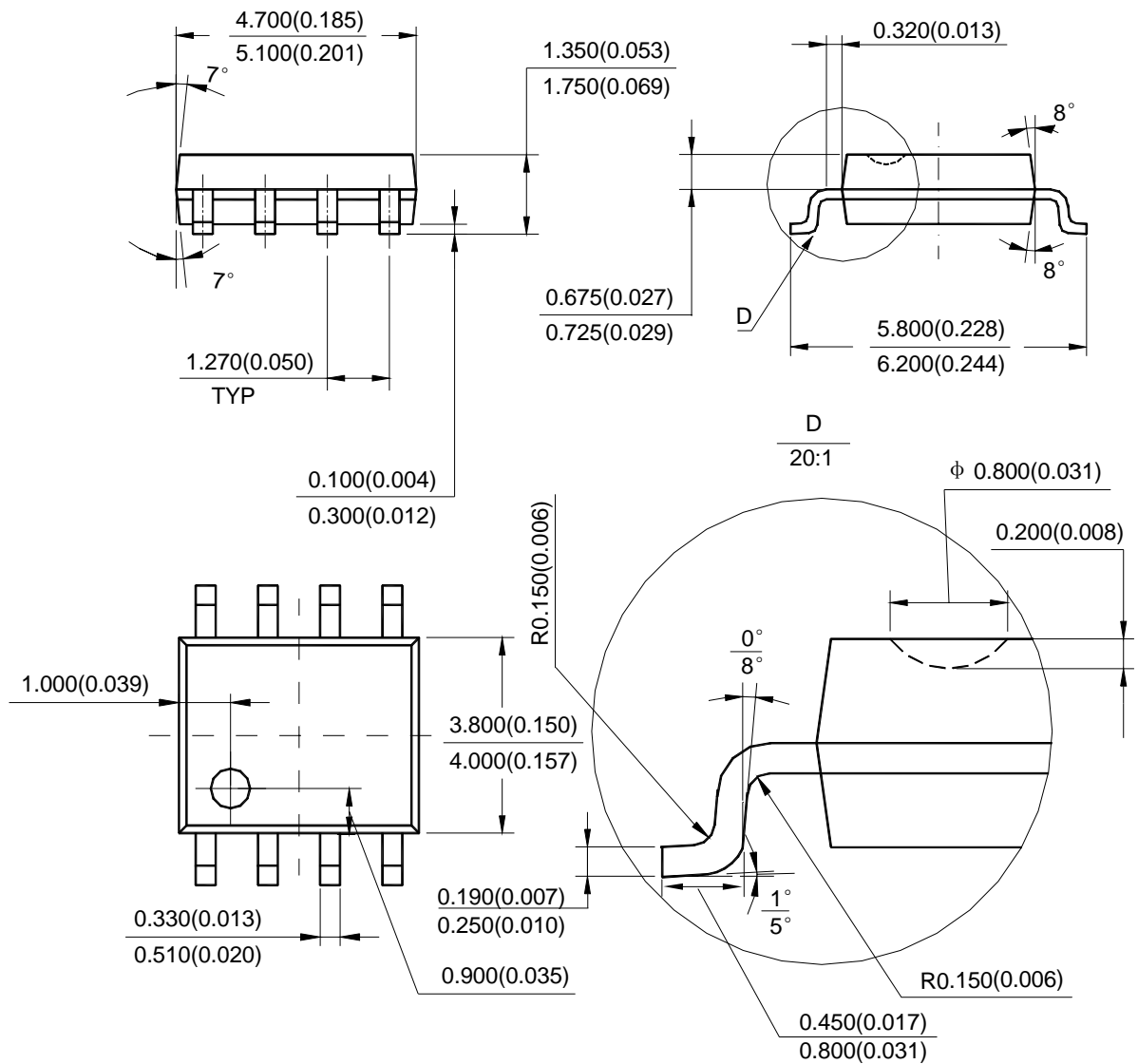
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Mechanical Dimensions (Continued)

SOIC-8

Unit: mm(inch)





BCD Semiconductor Manufacturing Limited

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