

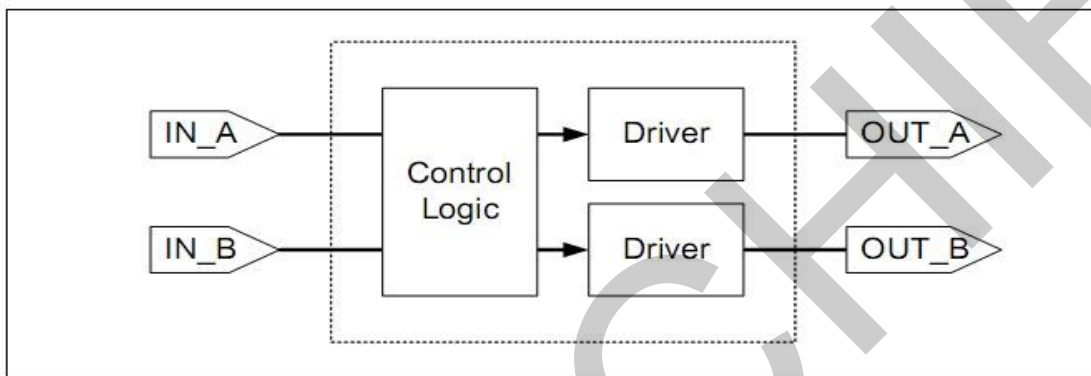
## GENERAL DESCRIPTION

The HT5115 is a bi-directional motor driver with Forward/Reverse/stop/ Release function for motor driver application..

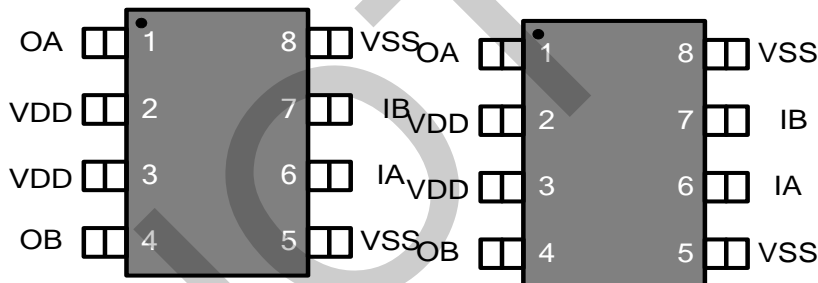
## FEATURES

- ◆ Low voltage operation
- ◆ Low current drain at standby mode
- ◆ Provide 4 modes motor driver, Forward/Reverse/Stop/Release
- ◆ Over-current auto protection

## BLOCKDIAGRAM



## PIN DESCRIPTIONS



| Symbol | I/O Type | Pin# | Description           |
|--------|----------|------|-----------------------|
| VDD    | P        | 2,3  | Power Supply          |
| VSS    | G        | 5,8  | Ground Supply         |
| IN_A   | I        | 6    | Input Signal A        |
| IN_B   | I        | 7    | Input Signal B        |
| OUT_A  | O        | 1    | Motor Driver Output A |
| OUT_B  | O        | 4    | Motor Driver Output B |

**FUNCTIONAL DESCRIPTIONS**

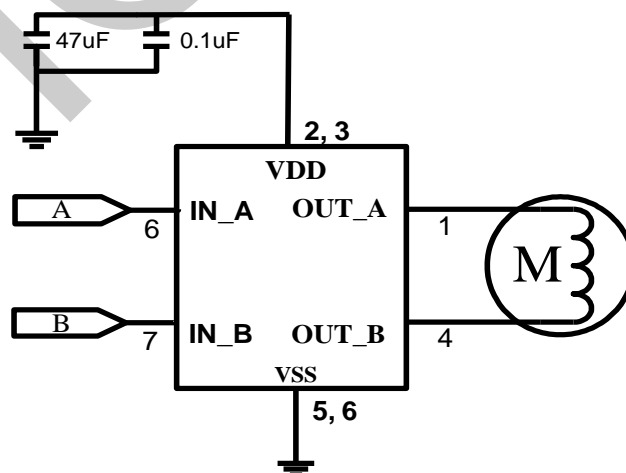
| IN_A | IN_B | OUT_A | OUT_B | MODE    |
|------|------|-------|-------|---------|
| L    | L    | Z     | Z     | Release |
| H    | L    | H     | L     | Forward |
| L    | H    | L     | H     | Reverse |
| H    | H    | L     | L     | Break   |

**ELECTRICAL CHARACTERISTICS at 25°C**

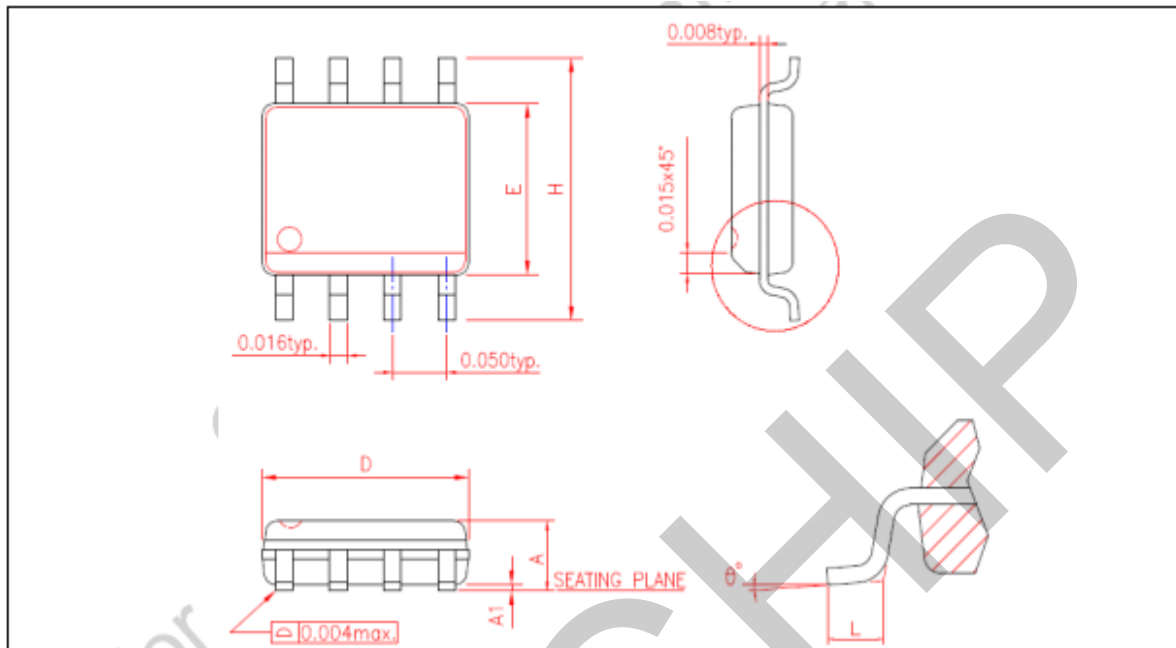
| Item               | Symbol           | Min.            | Typ. | Max.            | Unit | Condition  |
|--------------------|------------------|-----------------|------|-----------------|------|--|
| Operating Voltage  | V <sub>CC</sub>  | 1.6             | 3.0  | 4.8             | V    |  |
| Standby Current    | L <sub>DDS</sub> | -               | 1    | 20              | uA   | V <sub>DD</sub> =3V, IN_A/IN_B = V <sub>SS</sub> |
| Operating Current  | L <sub>DDO</sub> | -               | 150  | -               | uA   | V <sub>DD</sub> =3V, no load                     |
| Input High Voltage | V <sub>IH</sub>  | 1.2             | -    | V <sub>DD</sub> | V    | V <sub>DD</sub> =3V                              |
| Input Low Voltage  | V <sub>IL</sub>  | V <sub>SS</sub> | -    | 0.8             | V    | V <sub>DD</sub> =3V                              |
| Output RO_UP       | RO_UP            |                 | 0.28 |                 | Ω    | V <sub>DD</sub> =3V                              |
| Output RO_DN       | RO_DN            |                 | 0.25 |                 | Ω    | V <sub>DD</sub> =3V                              |

**ABSOLUTE MAXIMUM RATINGS**

| Parameter                 | Symbol           | Min. | Typ. | Max.                 | Unit | Condition |
|---------------------------|------------------|------|------|----------------------|------|-----------|
| Supply Voltage            | V <sub>DD</sub>  | -    | -    | 6.0                  | V    |           |
| Output Current            | L <sub>OUT</sub> | -    | 1.5  | 1.8                  | A    |           |
| Logic Input Voltage Range | V <sub>IN</sub>  | -0.3 | -    | V <sub>DD</sub> +0.3 | V    |           |
| Storage Temperature Range | T <sub>STG</sub> | -40  | -    | 150                  | °C   |           |

**APPLICATION CIRCUITS**


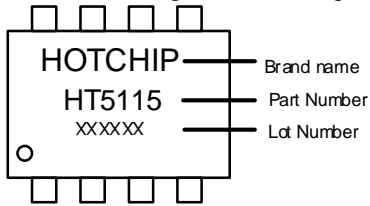
**Package Information**



| Symbol | Dimension in inch |       |
|--------|-------------------|-------|
|        | Min.              | Max.  |
| A      | 0.053             | 0.069 |
| A1     | 0.004             | 0.010 |
| D      | 0.189             | 0.196 |
| E      | 0.150             | 0.157 |
| H      | 0.228             | 0.244 |
| L      | 0.016             | 0.050 |
| θ°     | 0                 | 8     |

**PACKAGE DESCRIPTION**

## Device Marking and Ordering Information



| Package      | Chip surface marking | Purchasing the device name |
|--------------|----------------------|----------------------------|
| SOP8 Pb-free | HT5115               | HT5115                     |

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