

# Bi-Directional Motor Driver

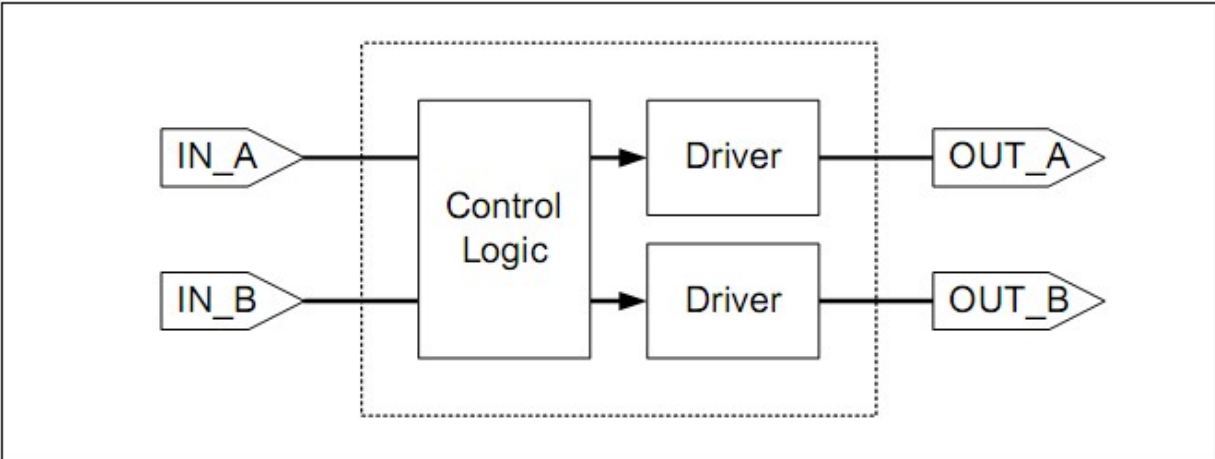
## General Description

The XT4055 is a bi-directional motor driver with Forward/Reverse/stop/ Release function for motor driver application.

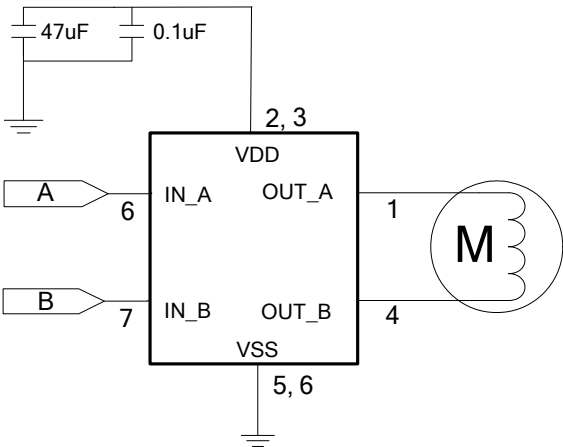
## Features

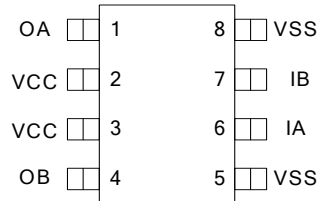
- Low voltage operation
- Low current drain at standby mode
- Provide 4 modes motor driver, Forward/Reverse/Stop/Release
- Over-current auto protection

## Function Block Diagram



## Application Circuits



**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

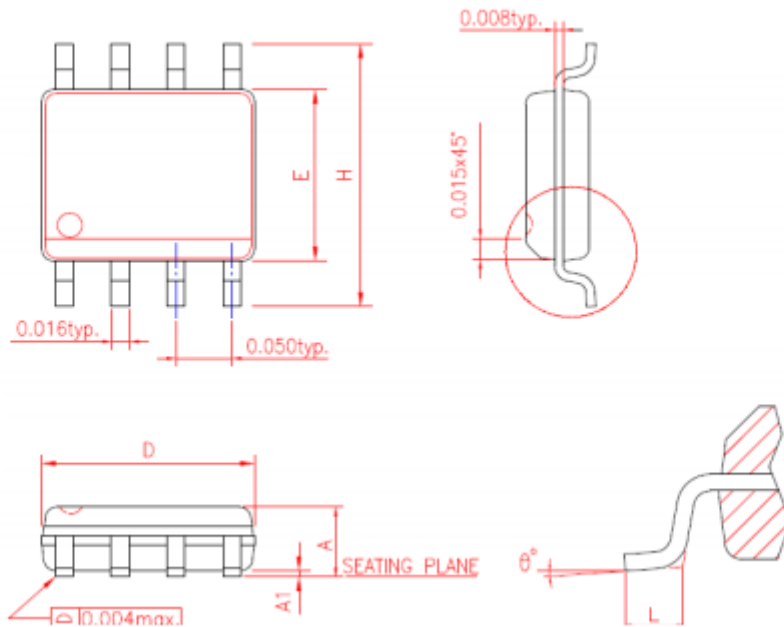
**Absolute Maximum Ratings**

Parameter	Symbol	Min.	Typ.	Max.	Unit.
Supply voltage	VDD	-	-	4.8	V
Output current	LOUT	-	800	1000	mA
Logic Input Voltage Range	VIN	-0.3	-	V <sub>DD</sub> +0.3	V
Storage Temperature Range	TSTG	-40	-	150	°C

■ 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>	-	0.1	1	μA	V <sub>DD</sub> =3V, IN_A/IN_B=V <sub>SS</sub>
Operating Current	L <sub>DDO</sub>	-	150	-	μA	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			0.30	Ω	V <sub>DD</sub> =3V
Output RO_DN	RO_DN			0.28	Ω	V <sub>DD</sub> =3V

■ 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