MM606-04A DATASHEET

Motor Driver

Features

–3V operation
–Low standby current
–Build-in input pull down resistor
–3 motor driver operation mode, Forward/Reverse/Stop

General Description

AMOS MM606-04A provides a cost effective single chip solution for bi-directional motor driver. It provides Forward/Reverse/Stop function in accordance to state of inputs INA, INB and Stop.

Pin Definition

Pin#	Pin Name	Function
1	VDD 1	Positive power supply (3V)
2	OUTA	Motor driver output A
3	VSS 1	Power supply ground (0V)
4	INB	Input signal B
5	STOP	Input signal STOP
6	INA	Input signal A
7	VSS 2	Power supply ground (0V)
8	OUTB	Motor driver output B
9	VDD 2	Positive power supply (3V)

Electrical Characteristics

Absolute Maximum Ratings

V_{SS}=0V, ambient temp. = 25 degree C

PARAMETER	SYMBOL	TEST CONDITIONS OR COMMENTS	LIMITS	UNIT
Supply Voltage	V_{DD}	-	3.5	V
Input Voltage	V_{IN}	-	-0.3 to Vdd + 0.3	V
Operation Temperature	T_{OP}	-	0 to 70	Deg C
Storage Temperature	T_{ST}	-	-25 to 125	Deg C
Output Current	I_O	OUTA or OUTB	-500 to 500	mA
Supply Source Current	I_{DD}	-	-500 to 500	mA
Supply Sink Current	I_{SS}	-	-500 to 500	mA

Absolute Maximum Rating are values beyond which the safety of the device cannot be guaranteed.

A.C. & D.C. Characteristics

V_{DD} = 3.0V, V_{SS}= 0V, ambient temperature = 25 Degree C (unless otherwise specified).

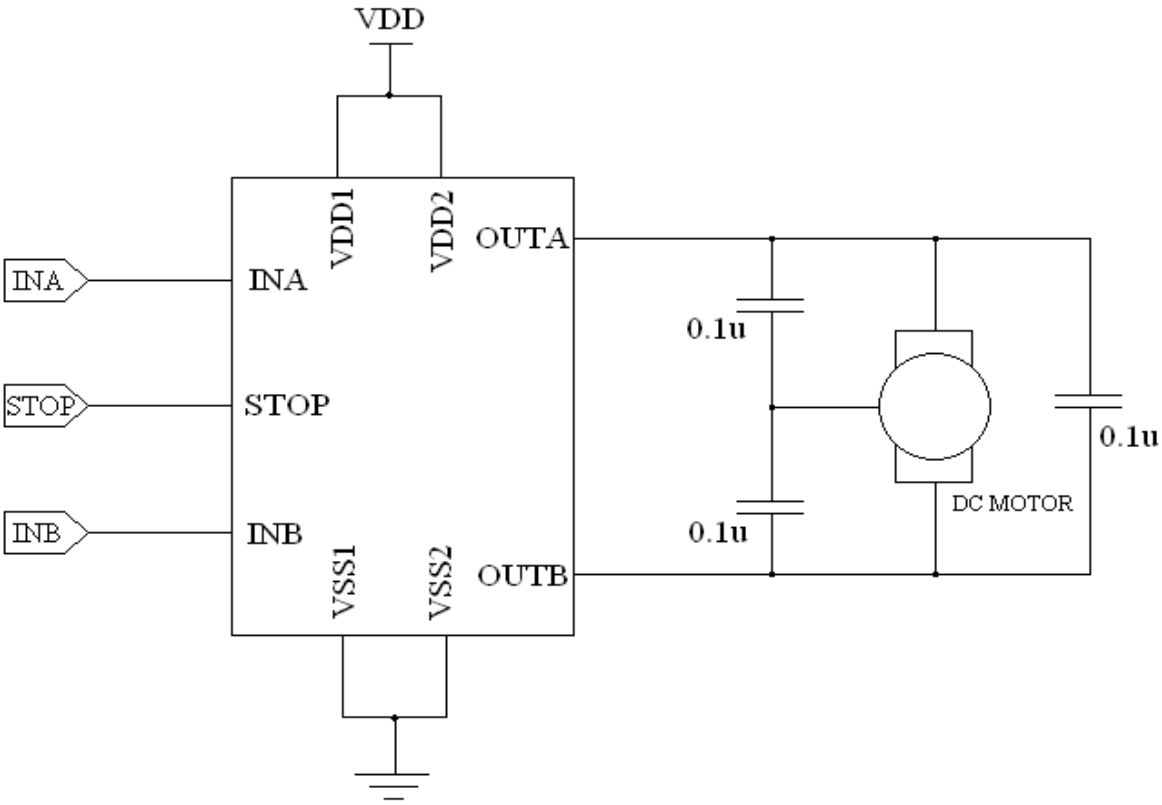
PARAMETER	SYMBOL	TEST	LIMITS			
			MIN	TYP	MAX	
Operating Voltage	V_{DD} - Vss	-	2.0	3.0	3.3	V
Standby Current	Isby	No load INA, INB and STOP = VSS	-	2	20	uA
Input High Current	I_{IH}	INA, INB and STOP = VDD	-	10	100	uA
Input High Voltage	V_{IH}	-	V_{DD} - 0.2	-	-	V
Input Low Voltage	V_{IL}	-	-	-	Vss +0.2	V
Output Low Voltage	V_{OL}	I_{OL} = 400mA	-	0.5	0.7	V
Output High Voltage	V_{OH}	I_{OH} = 400mA	V_{DD} - 1.0	V_{DD} - 0.7	-	V

Operation Mode

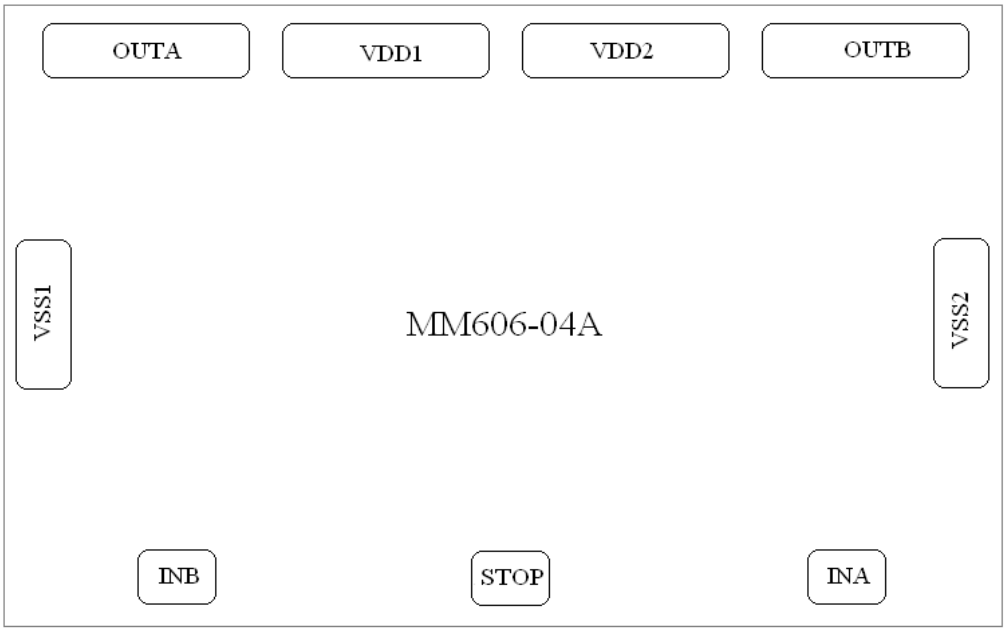
STOP	INA	INB	OUTA	OUTB	Mode
L	L	L	L	L	Stop
L	H	L	H	L	Forward
L	L	H	L	H	Reverse
L	H	H	H	H	Stop
H	X	X	L	L	Stop

AMOS reserves the right to make changes in the circuitry and specification
of the chip without notice, customers are advised to check AMOS on the latest information.

Application Circuit



PAD Diagram



Note: 1 Sufficient die pad area (and connected copper area) should be allow for good thermal heat sink.
2 Sufficient number of bond wire of appropriate wire diameter should be bonded to allow for maximum peak output current.