

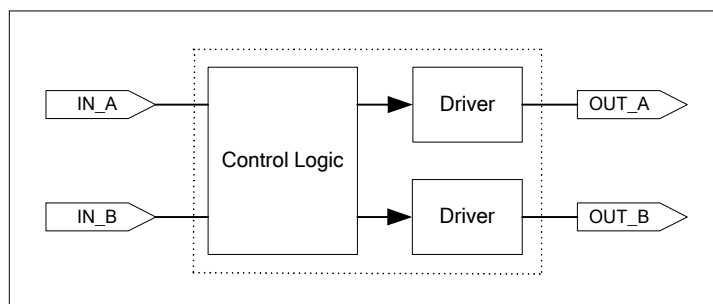
GENERAL DESCRIPTION

The HT5125F is a bi-directional motor driver with Forward/Reverse/stop/Release function for motor driver application.

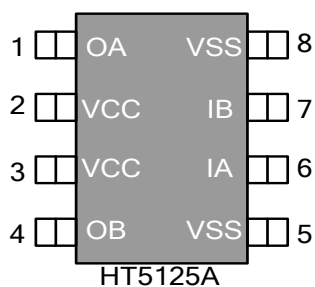
FEATURES

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

BLOCK DIAGRAM



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 A
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

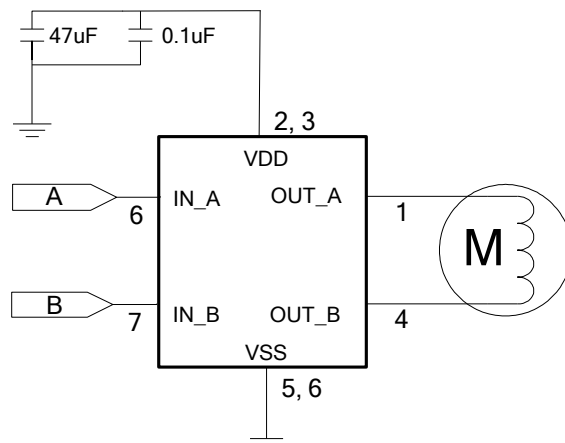
Item	Symbol	Min	Typ	Max	Unit	Condition
Operating Voltage	V _{DD}	1.6	3.6	4.2	V	
Standby Current	I _{DDs}	-	0.2	5	uA	V _{DD} =3V, IN_A/IN_B= V _{SS}
Operating Current	I _{DDO}	-	150	300	uA	V _{DD} =3.6V, no load
Input High Voltage	V _{IH}	1.2	-	V _{DD}	V	V _{DD} =3V
Input Low Voltage	V _{IL}	V _{SS}	-	0.8	V	V _{DD} =3V
Output RO_UP	RO_UP		0.23		Ω	V _{DD} =3.6V
Output RO_DN	RO_DN		0.20		Ω	V _{DD} =3.6V
OTP_R				150	°C	
OTP_F				100	°C	

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Supply Voltage	V _{DD}	-0.3	-	4.8	V	-
Output Current	I _{OUT}	-	2.0	-	A	-
Logic Input Voltage Range	V _{IN}	-0.3	-	V _{DD} +0.3	V	-
Junction Temperature	T _J	-	-	125	°C	-
Storage Temperature Range	T _{STG}	-40	-	150	°C	-
Operating Temperature Range	T _A	0	-	85	°C	-

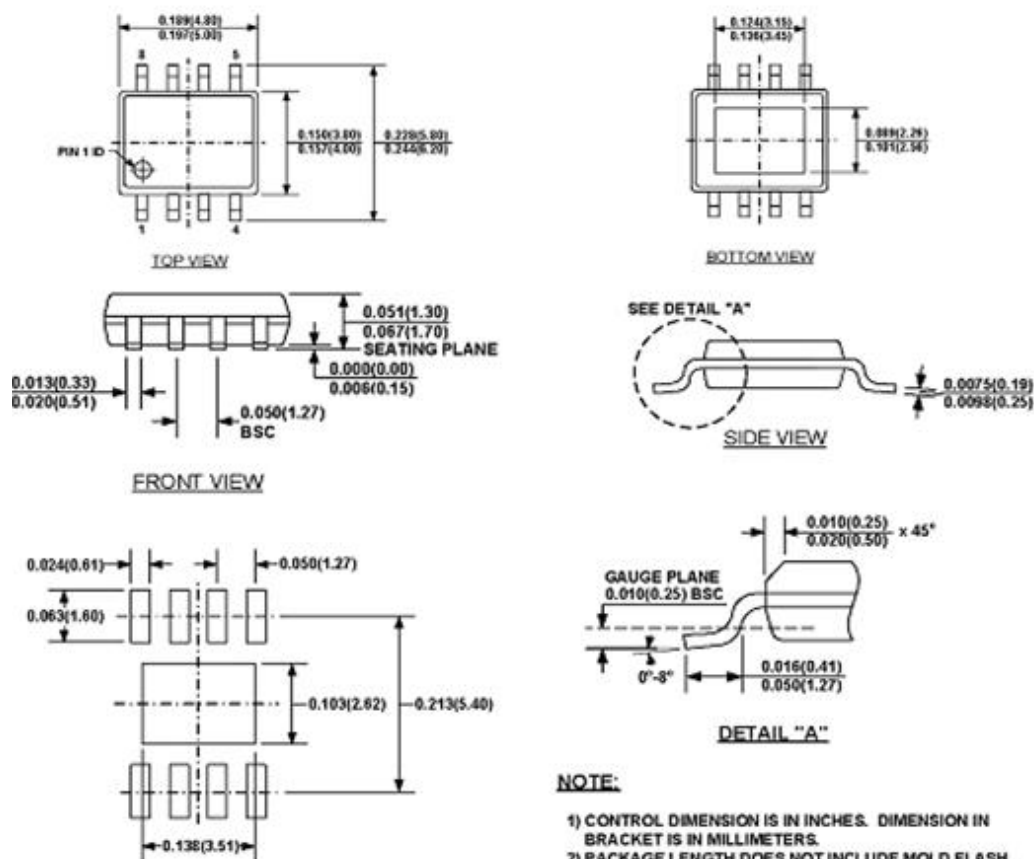
Note: Output current rating may be limited by ambient temperature, heat sink and air flow etc. Do not exceed the junction temperature of 150°C under any set of conditions.

BLOCK DIAGRAM



Package Description

ESOP8 PACKAGE OUTLINE DIMENSIONS



NOTE:

- 1) CONTROL DIMENSION IS IN INCHES. DIMENSION IN BRACKET IS IN MILLIMETERS.
- 2) PACKAGE LENGTH DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.
- 3) PACKAGE WIDTH DOES NOT INCLUDE INTERLEAD FLASH OR PROTRUSIONS.
- 4) LEAD COPLANARITY (BOTTOM OF LEADS AFTER FORMING) SHALL BE 0.004" INCHES MAX.
- 5) DRAWING CONFORMS TO JEDEC MS-012, VARIATION BA.
- 6) DRAWING IS NOT TO SCALE.

SOP8 PACKAGE OUTLINE DIMENSIONS

