

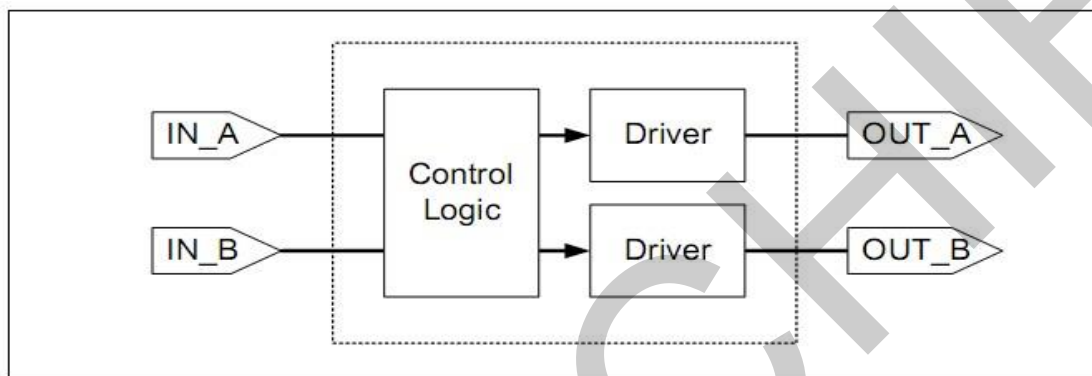
## GENERAL DESCRIPTION

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

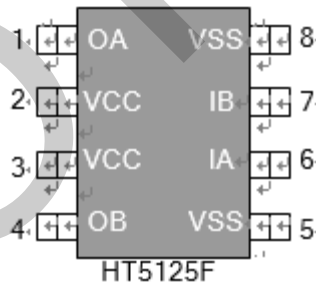
## FEATURES

- ◆ 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 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**

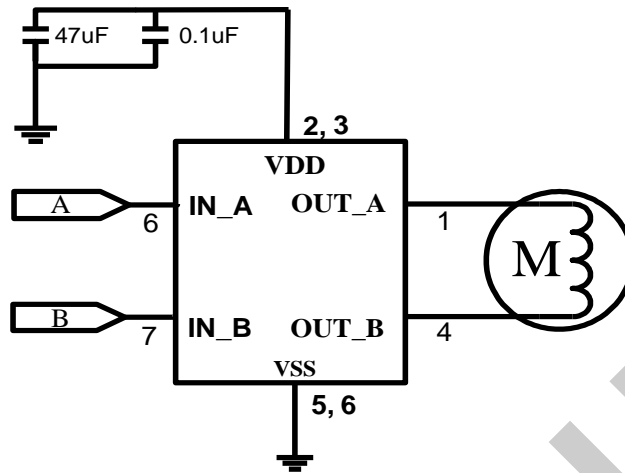
Item	Symbol	Min.	Typ.	Max.	Unit	Condition
Operating Voltage	V <sub>DD</sub>	1.6	3.6	4.2	V	
Standby Current	I <sub>DDs</sub>	-	2	5	uA	V <sub>DD</sub> =3V, IN_A/IN_B = V <sub>SS</sub>
Operating Current	I <sub>DDO</sub>	-	150	300	uA	V <sub>DD</sub> =3.6V, no load
Input High Voltage	V <sub>IH</sub>	1.2	-	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		0.23		Ω	V <sub>DD</sub> =3.6V
Output RO_DN	RO_DN		0.20		Ω	V <sub>DD</sub> =3.6V
OTP_R				150	°C	
OTP_F				100	°C	

**ABSOLUTE MAXIMUM RATINGS**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Supply Voltage	V <sub>DD</sub>	-0.3	-	4.8	V	-
Output Current	I <sub>OUT</sub>	-	2.0	-	A	-
Logic Input Voltage Range	V <sub>IN</sub>	-0.3	-	V <sub>DD</sub> +0.3	V	-
Junction Temperature	T <sub>J</sub>	-	-	125	°C	-
Storage Temperature Range	T <sub>STG</sub>	-40	-	150	°C	-
Operating Temperature Range	T <sub>A</sub>	0	-	85	°C	-

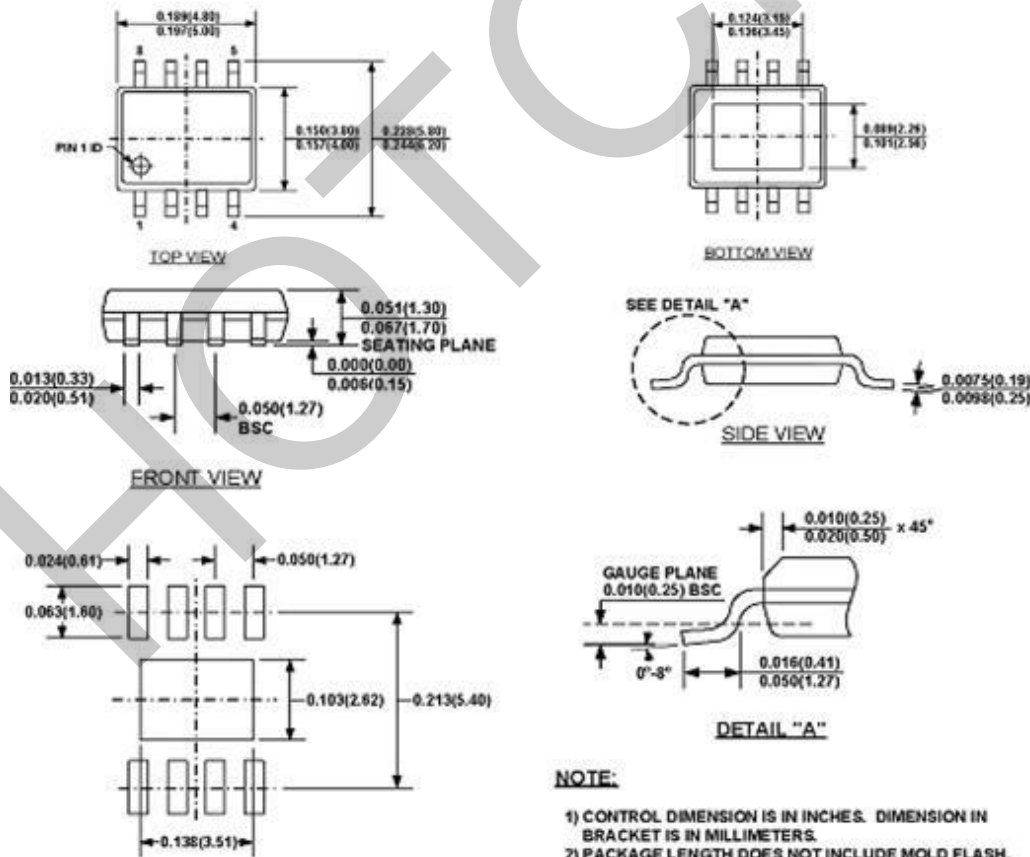
**Note:** Output current rating may be limited by ambient temperature, heat sink and air flow etc. Do not exceed the junction temperature of 150°C under any set of conditions.

**BLOCK DIAGRAM**



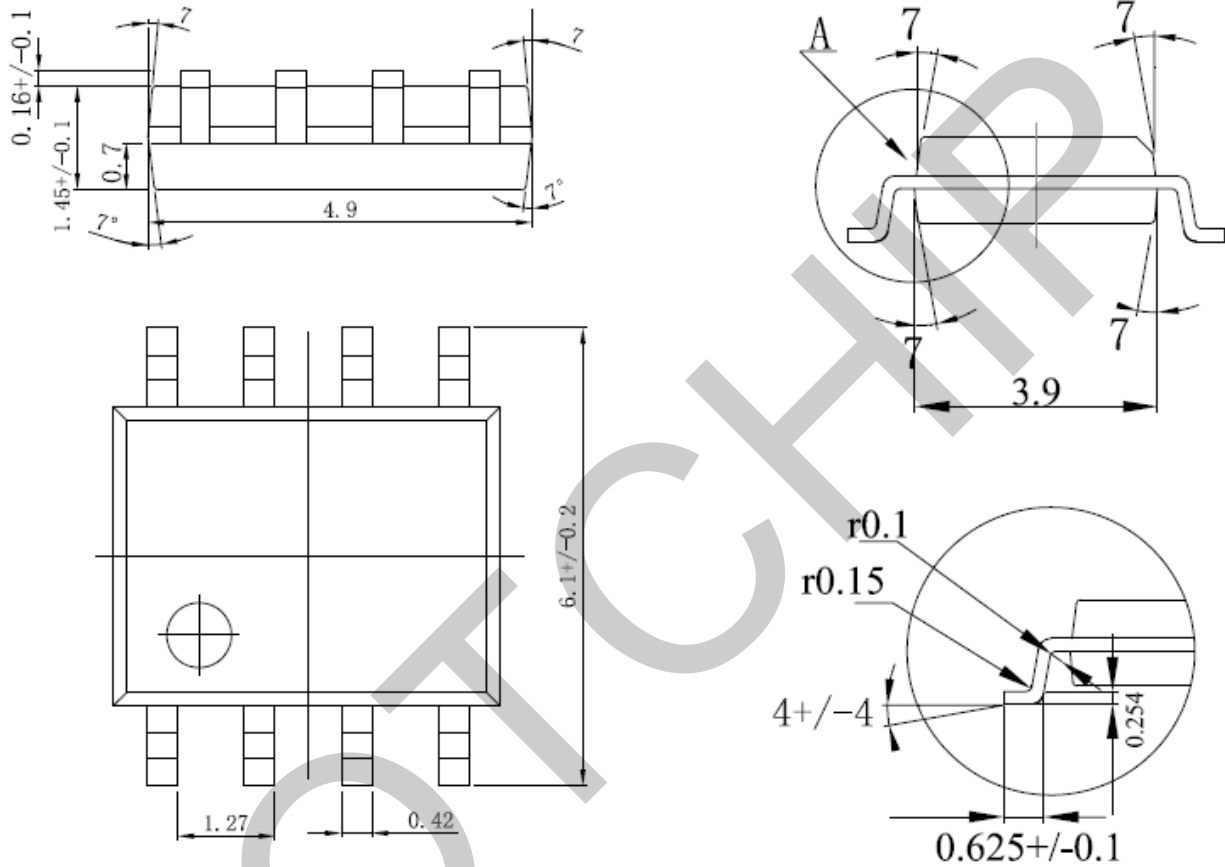
**Package Information**

**ESOP8 PACKAGE OUTLINE DIMENSIONS**



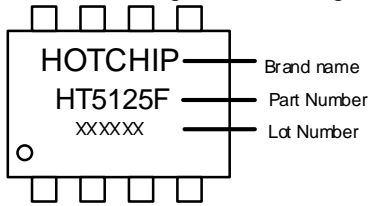
**NOTE:**

- 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**

**PACKAGE DESCRIPTION**

## Device Marking and Ordering Information



Package	Chip surface marking	Purchasing the device name
ESOP8/SOP8 Pb-free	HT5125F	HT5125F

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