

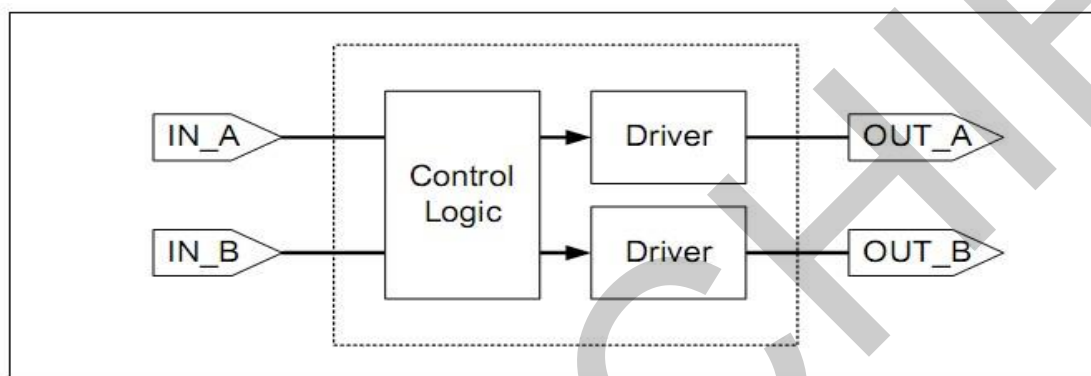
GENERAL DESCRIPTION

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

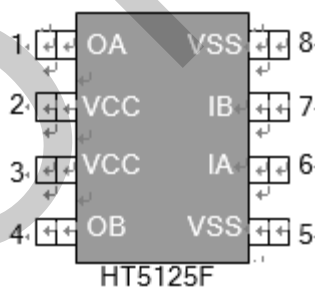
FEATURES

- ◆ 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

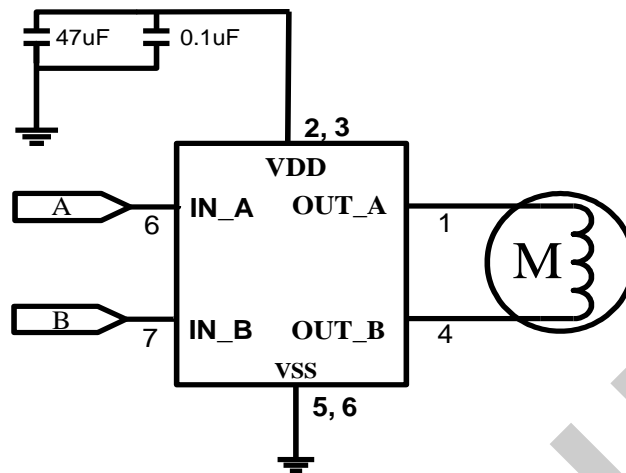
Item	Symbol	Min.	Typ.	Max.	Unit	Condition
Operating Voltage	V _{DD}	1.6	3.6	4.2	V	
Standby Current	I _{DDS}	-	2	5	uA	V _{DD} =3V, IN_A/IN_B = V _{SS}
Operating Current	I _{DDO}	-	150	300	uA	V _{DD} =3.6V, no load
Input High Voltage	V _{IH}	1.2	-	V _{DD}	V	V _{DD} =3V
Input Low Voltage	V _{IL}	V _{SS}	-	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	-

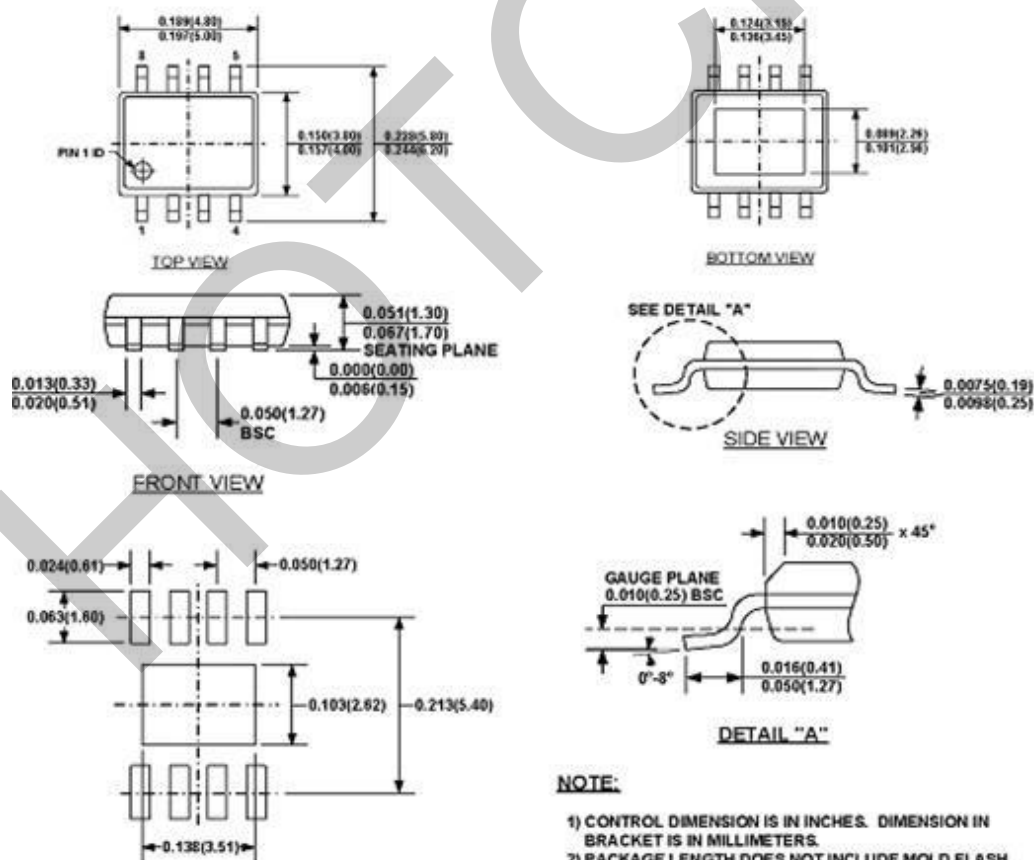
Note: Output current rating may be limited by ambient temperature, heat sink and air flow etc. Do not exceed the junction temperature of 150°C under any set of conditions.

BLOCK DIAGRAM



Package Information

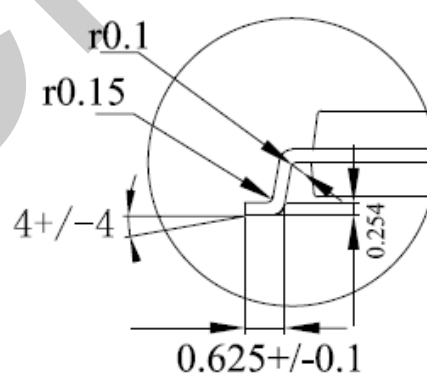
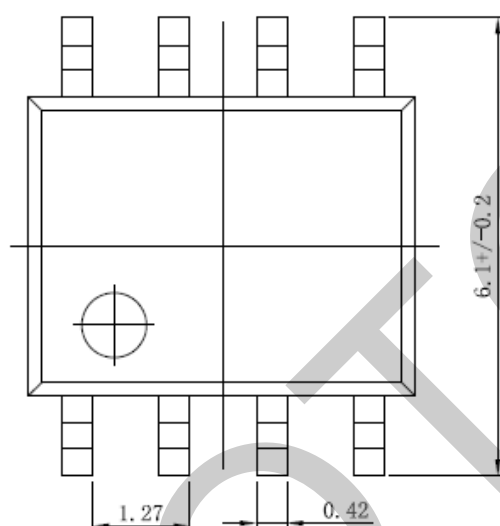
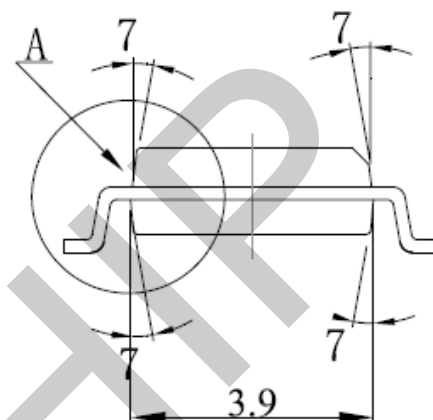
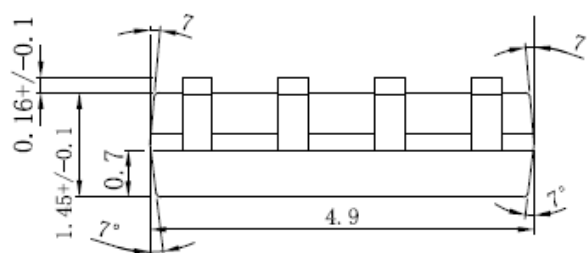
ESOP8 PACKAGE OUTLINE DIMENSIONS



NOTE:

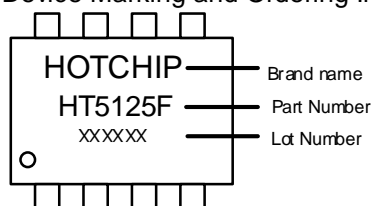
- 1) CONTROL DIMENSION IS IN INCHES. DIMENSION IN BRACKET IS IN MILLIMETERS.
- 2) PACKAGE LENGTH DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.
- 3) PACKAGE WIDTH DOES NOT INCLUDE INTERLEAD FLASH OR PROTRUSIONS.
- 4) LEAD COPLANARITY (BOTTOM OF LEADS AFTER FORMING) SHALL BE 0.004" INCHES MAX.
- 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

IMPORTANT NOTICE

- ◆ HOTCHIP reserves the right to alter its products without prior notification. For the most up-to-date information, please visit our web site at <http://www.hotchip.com.cn>.
- ◆ HOTCHIP assumes no liability for the issues about the industrial standard, licenses and the right of the third party caused by the electric circuit and chart. The schematic is just for typical application, is not for the specialized mass production application.
- ◆ The export authorization from government is needed when the product or its derivative product do not agree with the Wassenaar Arrangement or other international agreement.
- ◆ Any copy of these information without our permission to print for other uses is forbidden.
- ◆ HOTCHIP's products are not authorized for use as critical components in life support devices or systems, such as motion machine, medical machine, security system, gas equipment, airplane or any other conveyance.
- ◆ HOTCHIP cannot avoid fault or losing efficacy, though we will do the best to improve the quality and reliability. The customers use the products should go through the security design, such as the redundant design, fire protection design, failure protection about the secondary disasters, fire or other related damage.
- ◆ HOTCHIP will continuously provide better products for the customers by all our heart