DESCRIPTION

The PT5141 is a motor driver IC for DC motor. It includes one Full-On Drive H-Bridge channel and a 3.3V, 300mA LDO as additional power supply for MCU or other load. The driver features wide range operating from 2.5V to 12V and low power consumption by fast switching speed.

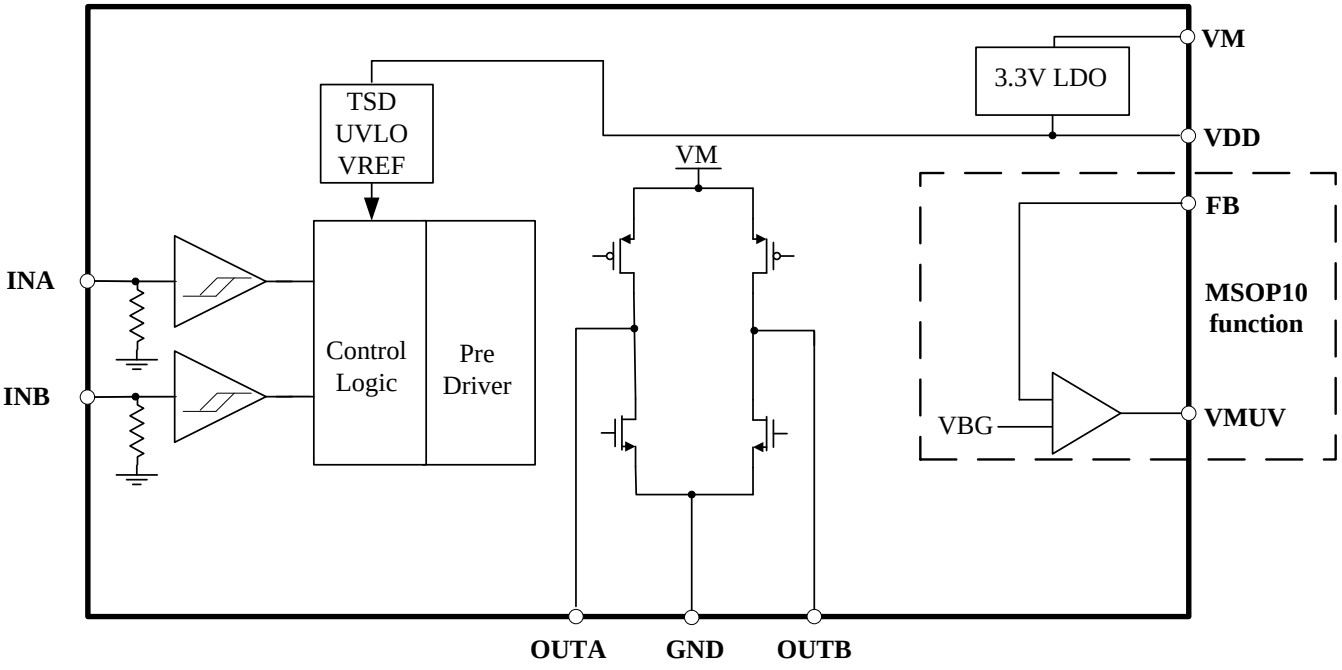
APPLICATION

- Toys
- MV bi-direction DC motor
- Robotics and others

FEATURES

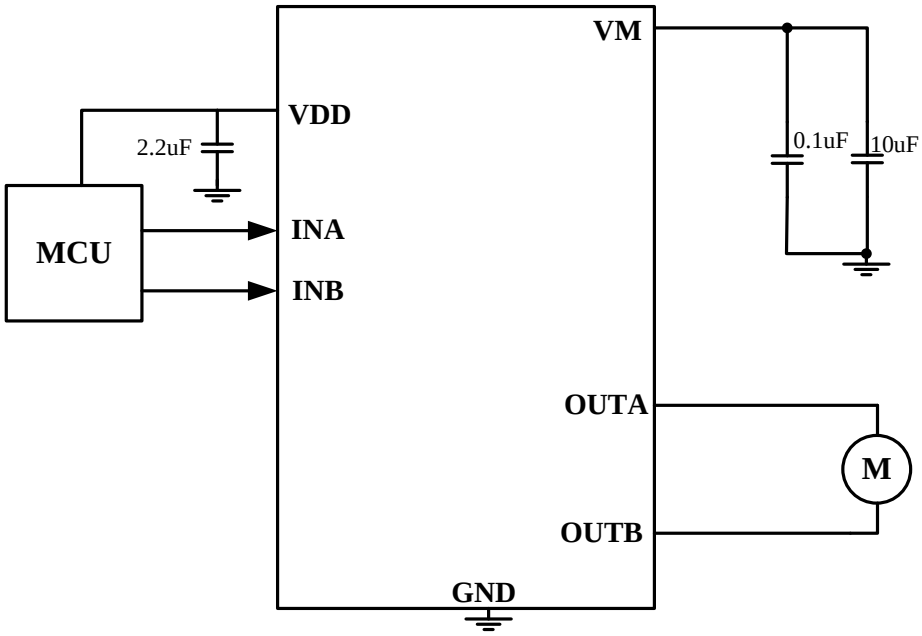
- It is low consumption by BCD process adoption
- Small package: SOP8 and MSOP10
- Wide power-supply voltage range:
  - Motor (VM): 2.5V~12V
- High DC output current: Max.=0.8A
- Low RDSON(TOP+BOT):
  1.4ΩTYP@25°C, 0.8A for SOP8;
- Low current consumption when power-down:
  <15uA @25°C
- Built-In 3.3V VDD LDO output
- PWM control, Max. input frequency: 200KHz.
- Operating temperature range: -30 to +85°C
- Charge-pump less
- Shoot-through current protection
- Built-in protection circuits
  - Under voltage lock out
  - Thermal shut down

BLOCK DIAGRAM

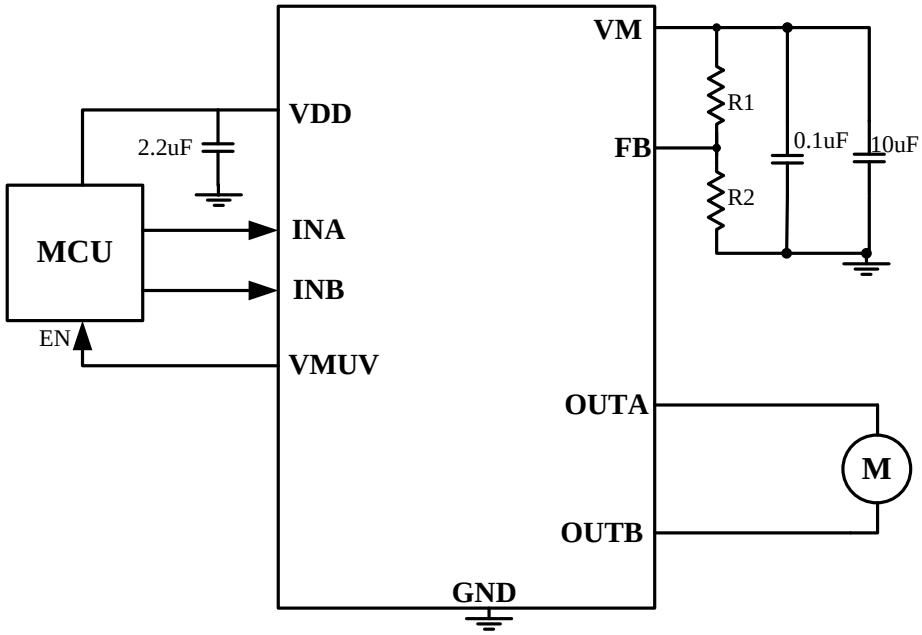


APPLICATION CIRCUITS

SOP8



MSOP10

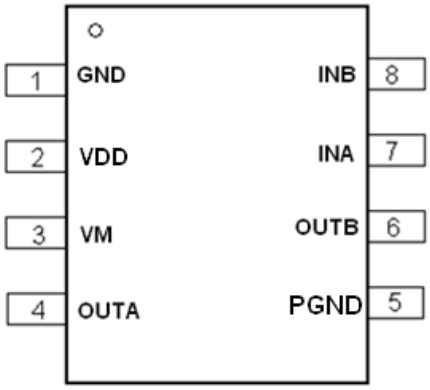


ORDER INFORMATION

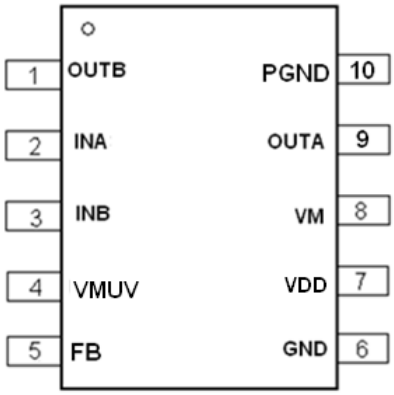
Valid Part Number	Package Type	Top Code
PT5141	8 pins, SOP, 150MIL	PT5141
PT5141-M	10 pins, MSOP, 118MIL	PT5141-M

PIN CONFIGURATION

SOP8



MSOP10



PIN DESCRIPTION

Pin Name	I/O	Description	Pin No.	
			SOP8	MSOP10
GND	GND	Ground	1	6
VDD	Power	Power supply for Logic circuit and LDO output.	2	7
VM	Power	Power supply for driver	3	8
OUTA	O	H-Bridge output terminal A of the driver	4	9
PGND	GND	Power MOS GND	5	10
OUTB	O	H-Bridge output terminal B of the driver	6	1
INA	I	Control input	7	2
INB	I	Control input	8	3
VMUV	O	The under voltage detection output signal of VM	-	4
FB	I	The feedback voltage of VM	-	5

IMPORTANT NOTICE

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