

DESCRIPTION

The PT12464 provides 2 channel Full-On H-Bridge drivers. The output driver features wide operating range from 2.0V and low power consumption. It also provides fast switching speed in a compact surface mount package.

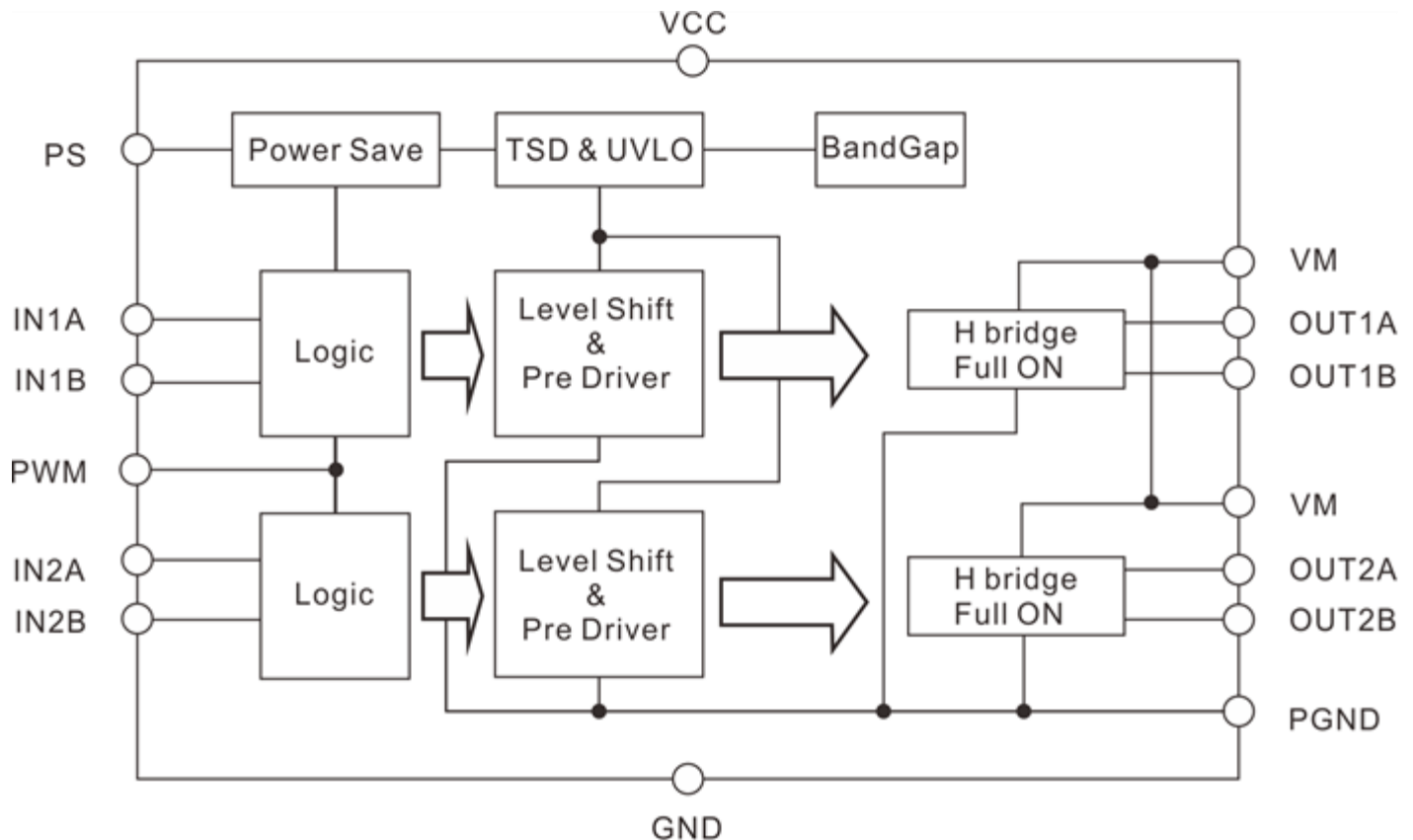
APPLICATION

- Drives brushed dc motor or bipolar stepping motor
- Camera lenses
- Mirror / reflector angle adjustment
- Battery powered applications

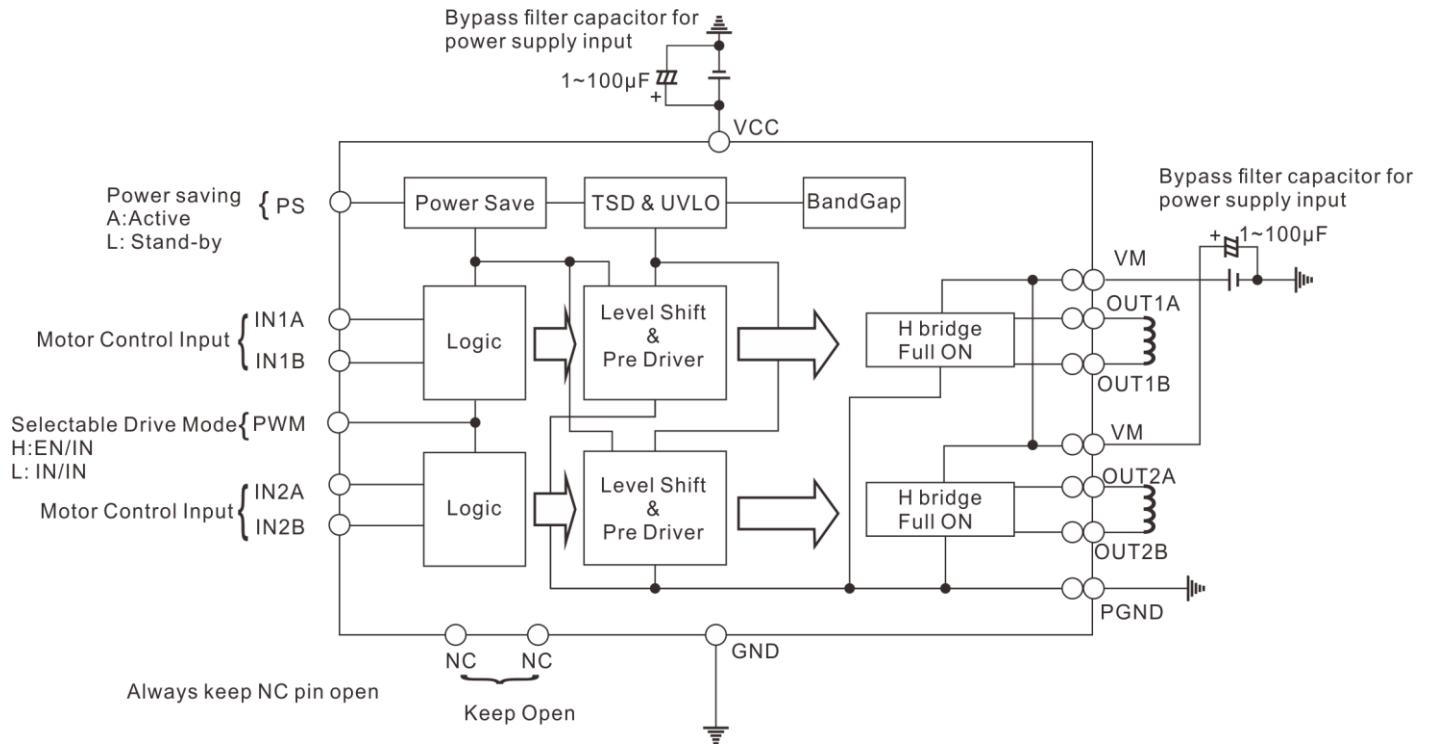
FEATURES

- Automotive AEC-Q100 Grade 2 (-40°C~+105°C) Qualified.
- Range of motor power supply voltage:
 - Control (VCC) : 2.5V to 5.5V
 - Motor (VM) : 2.0V to 16V
- Low current consumption when power-down: <math><1\mu\text{A}</math>@25°C
- Ultra low RDS(ON)(TOP+BOT): 0.4Ω_{TYP}@25°C
- Charge pump-less, P-channel DMOS as upper side switches
- H-bridge output current (DC): ±1.8A(Max)
- High-speed switching:
 - Turn On Time: 200ns, Turn Off Time: 80ns (Typ.)
- Operating temperature range: -40°C~+105°C
- Built-in protection circuits
 - Under Voltage Lock Out (UVLO)
 - Thermal Shut Down (TSD)

BLOCK DIAGRAM



APPLICATION CIRCUIT



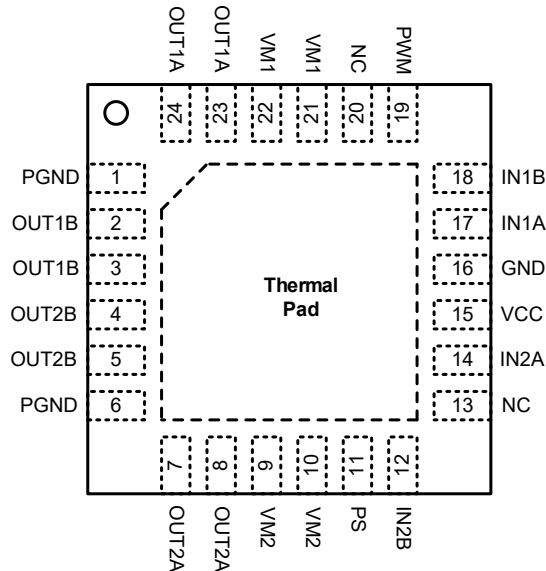
Note: The VM pin group includes pin 9, 10 and pin 21, 22 should be short-circuit connection by PCB track or pattern. If cannot, check into transitional characteristics of total application circuit including two motors. Through low impedance materials, the possibility of causing some unexpected malfunctions is incontrovertible.

ORDER INFORMATION

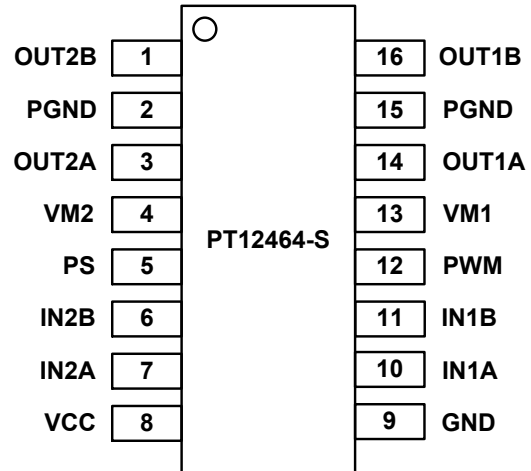
Part Number	Package Type	Top Code
PT12464	24 Pins, QFN, 4*4mm	PT12464
PT12464	16 Pins, SOP	PT12464-S

PIN CONFIGURATION

QFN (TOP VIEW)



SOP (TOP VIEW)



PIN DESCRIPTION

QFN, 24 PINS

Pin Name	I/O	Description	Pin No.
PGND	GND	Motor ground terminal	1
OUT1B	O	H-bridge output terminal ch.1B	2
OUT1B	O	H-bridge output terminal ch.1B	3
OUT2B	O	H-bridge output terminal ch.2B	4
OUT2B	O	H-bridge output terminal ch.2B	5
PGND	GND	Motor ground terminal	6
OUT2A	O	H-bridge output terminal ch.2A	7
OUT2A	O	H-bridge output terminal ch.2A	8
VM2	Power	Motor power supply terminal	9
VM2	Power	Motor power supply terminal	10
PS	I	Power-saving terminal	11
IN2B	I	Control input terminal ch.2B	12
N.C.	-	No connect.	13
IN2A	I	Control input terminal ch.2A	14
VCC	Power	Power supply terminal	15
GND	GND	Ground terminal	16
IN1A	I	Control input terminal ch.1A	17
IN1B	I	Control input terminal ch.1B	18
PWM	I	Drive mode selection pin	19
N.C.	-	No connect.	20
VM1	Power	Motor power supply terminal	21
VM1	Power	Motor power supply terminal	22
OUT1A	O	H-bridge output terminal ch.1A	23
OUT1A	O	H-bridge output terminal ch.1A	24

Note: Each of the same named terminals (VM1, VM2, PGND, OUT1A, OUT1B, OUT2A, OUT2B) must be connected together on the PCB (Printed Circuit Board).

IMPORTANT NOTICE

Princeton Technology Corporation (PTC) reserves the right to make corrections, modifications, enhancements, improvements to our products. Any changes will inform the customer by Product Change Notice (PCN) in prior of final implementation.

PTC cannot assume responsibility for use of any circuitry other than circuitry entirely embodied in a PTC product. No circuit patent licenses are implied.

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