DESCRIPTION

The PT2479L is a monolith integrated motor driver designed for printers, scanners or home appliance. The built-in two channel H-bridges designs for driving a bipolar stepping motor or two DC-brushed motors.
The H-bridge driver is consists by all of N-channel MOSFET allows driving up to 2.5A maximum output current (V_M=24 V, Ta=25°C).

The dual-input interface is a common configuration for the motor driver; it is very versatile to control the H-bridge switches to determinate motor winding current and phase. The motor current decay mode is programmable by a tri-states input pin.

The PT2479L is available in a 28-pin HTSSOP package with thermal pad.

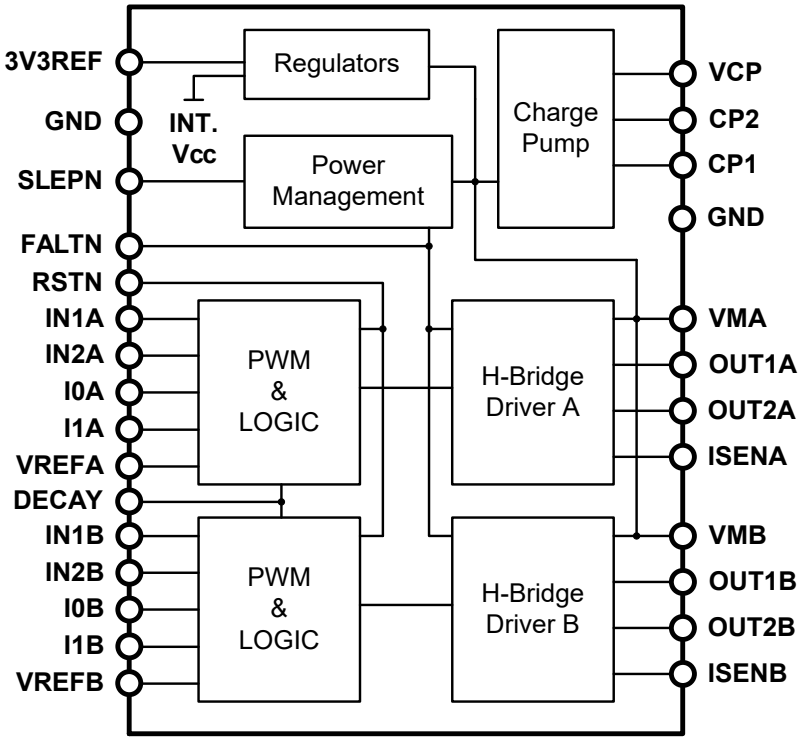
APPLICATIONS

- Automatic teller machines
- Video security cameras
- Printers
- Scanners
- Office automation machines
- Amusement machines
- Factory automation
- Robotics

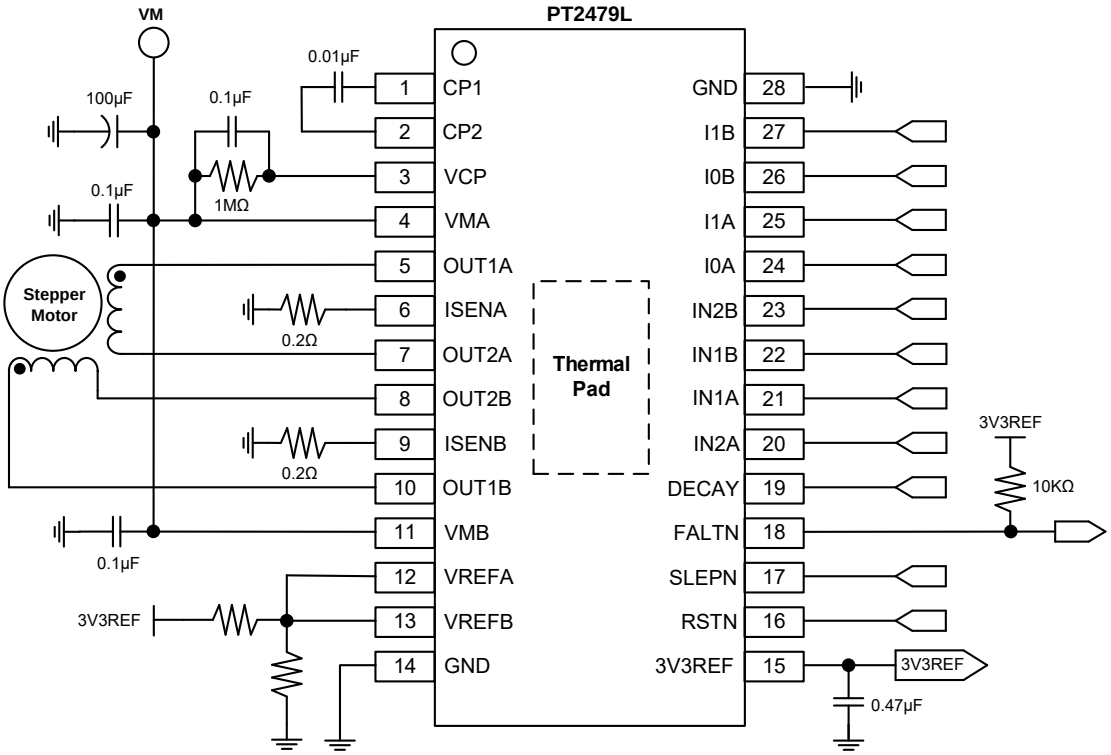
FEATURES

- 8V to 40V maximum supply voltage
- 2.5A maximum driving current at V_M=24V (with additional heatsink)
- Low switches conduction resistance: 0.4Ω(typ), high side + low side in Tj=25℃.
- Dual-in control interface
- H-bridge driver outputs with four levels PWM constant current regulation.
- Winding current decay modes
  - mixed decay
  - slow decay
  - fast decay
- Drives single bipolar stepping motor or dual brushed dc motors
- Built-in 3.3V reference voltage output
- Low-power sleep mode
- Protection features
  - Over current protection (OCP)
  - Thermal shutdown (TSD)
  - VM under voltage lock out (UVLO)
  - Fault indication output (FALTN)

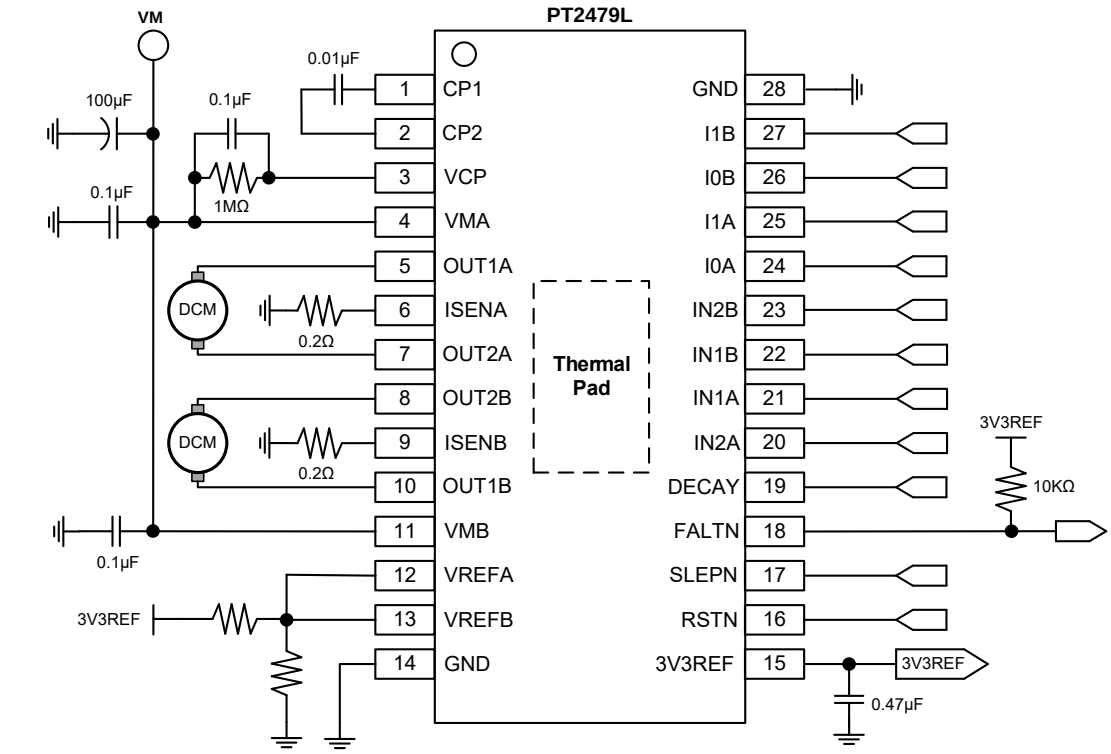
BLOCK DIAGRAM



APPLICATION CIRCUIT



Drives a bipolar stepping motor



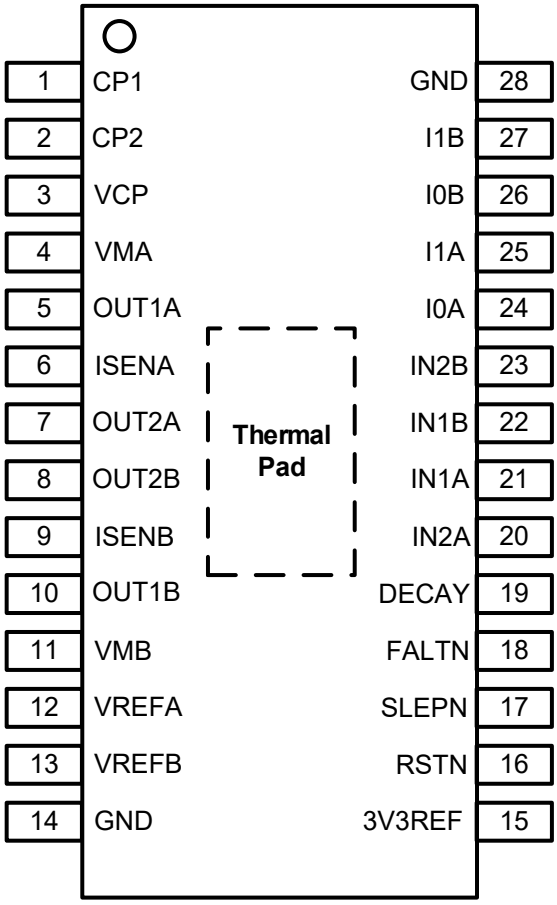
Drives two brushed dc motor

ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT2479L-HT	28 Pins, HTSSOP	PT2479L-HT

PIN CONFIGURATION

Top View



PIN DESCRIPTION

Pin Name	I/O	Description	Pin No.
CP1	I	External flying capacitor for charge pump, Connect a 0.01μF/50V low-ESR ceramic capacitor between CP1 and CP2.	1
CP2	I		2
VCP	O	High-side gate drive supply voltage (Connect a 0.1μF/50V ceramic capacitor and a 1MΩ resistor to VM.)	3
VMA	-	H-Bridge A power supply	4
OUT1A	O	H-Bridge A output 1	5
ISENA	I	H-Bridge A current sense / GND	6
OUT2A	O	H-Bridge A output 2	7
OUT2B	O	H-Bridge B output 2	8
ISENB	I	H-Bridge B current sense / GND	9
OUT1B	O	H-Bridge B output 1	10
VMB	-	H-Bridge B power supply	11
VREFA	I	H-Bridge A current set reference input	12
VREFB	I	H-Bridge B current set reference input	13
GND	-	Device ground	14
3V3REF	O	3.3V reference voltage output	15
RSTN	I	Reset input (L=Initialize all of internal logic registers and disables H-bridge outputs)	16
SLEPN	I	Sleep mode input (H=device enable, L=low-power sleep mode)	17
FALTN	O	Fault, Logic low when fault condition appear (OCP, OTP)	18
DECAY	I	Decay mode (Low = slow decay, open = mixed decay, high = fast decay)	19
IN2A	I	H-Bridge A Control Input 2	20
IN1A	I	H-Bridge A Control Input 1	21
IN1B	I	H-Bridge B Control Input 1	22
IN2B	I	H-Bridge B Control Input 2	23
I0A	I	H-Bridge A current set (Sets H-bridge A current: 00 = 100%, 01 = 71%, 10 = 38%, 11 = 0%)	24
I1A	I		25
I0B	I	H-Bridge B current set (Sets H-bridge B current: 00 = 100%, 01 = 71%, 10 = 38%, 11 = 0%)	26
I1B	I		27
GND	-	Device ground	28
Thermal Pad	-	Enhance the package heat dissipation, must connecting to the GND plane through the thermal via.	-