

DESCRIPTION

The PT5101 is a monolithic 4-Channel CMOS H-bridge motor driver. It can drive one stepper motor, two DCM and two coils. There also are several other flexible system solutions left to be utilized. The current consumption can be hold at quite low level during standby or operation. And the active power supply voltage range is from 2.7~5.5V. So the device is ideal for portable and battery powered applications.

The PT5101 is available in HLA24 (3mm × 3mm) package. Performance is specified for -20°C to +85°C temperature range.

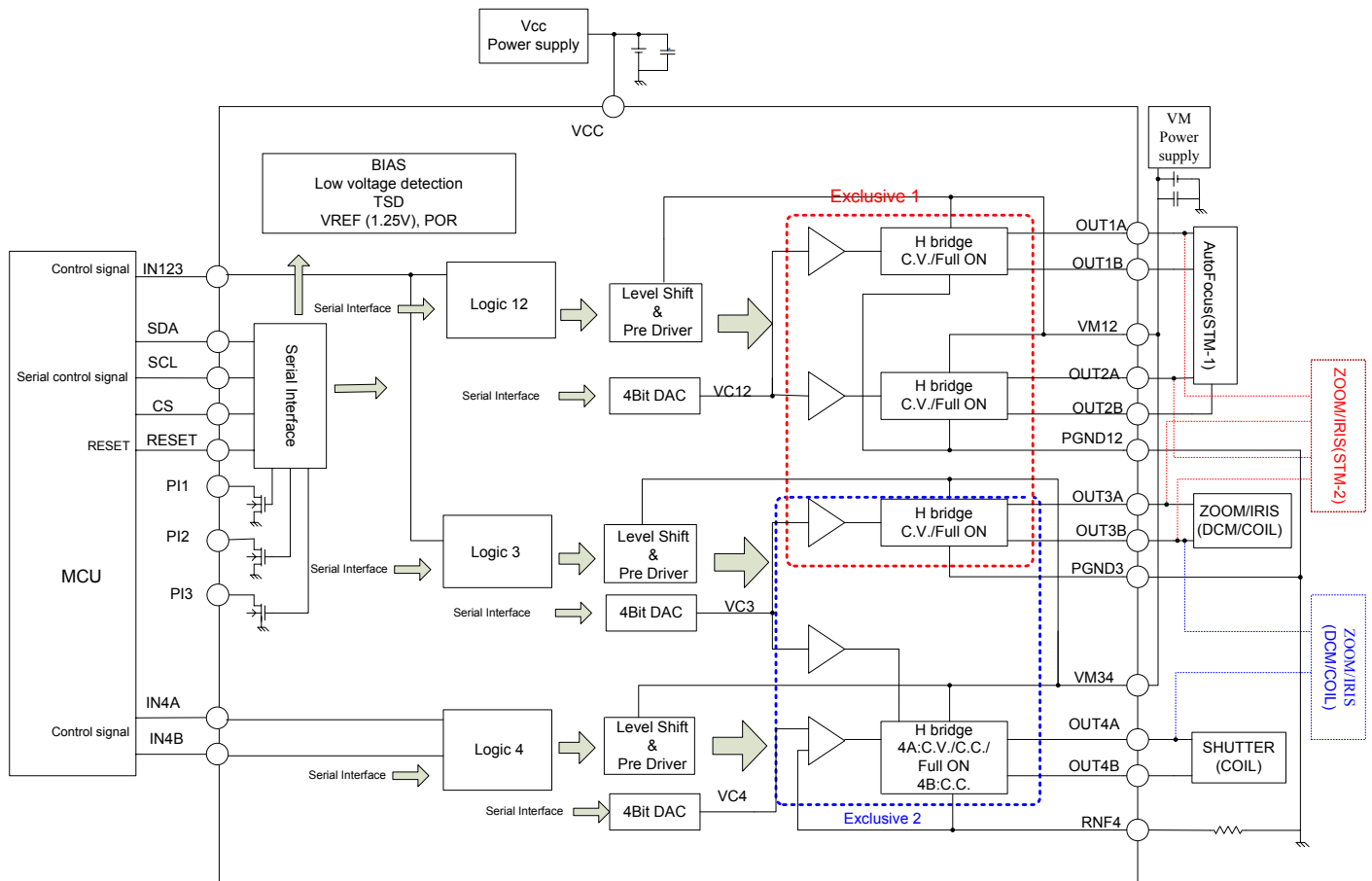
APPLICATIONS

- DSC

FEATURES

- Independent 4channel H-bridge, 3 full-swing drivers and 1 constant-current driver, all of those drivers with brake function.
- Versatile and flexible control mode - DC/stepper motor alternative, Full-swing/ Constant-Voltage/ Constant-Current selected
- Special Exclusive Control mode optional
- Constant-Voltage set by DAC: 1.8V~4.8V 0.2V/Bit Accuracy ± 5%
- Constant current set by DAC: 150mV~300mV 10mV/Bit Accuracy±5%
- Under voltage lockout circuit - Shut down the internal circuit at VCC=1.8V (Typ.)
- Thermal shut down circuit - Shut down the internal circuit at 150°C Hysteresis 30°C
- Available in small package HLA24 (3mm × 3mm)

BLOCK DIAGRAM



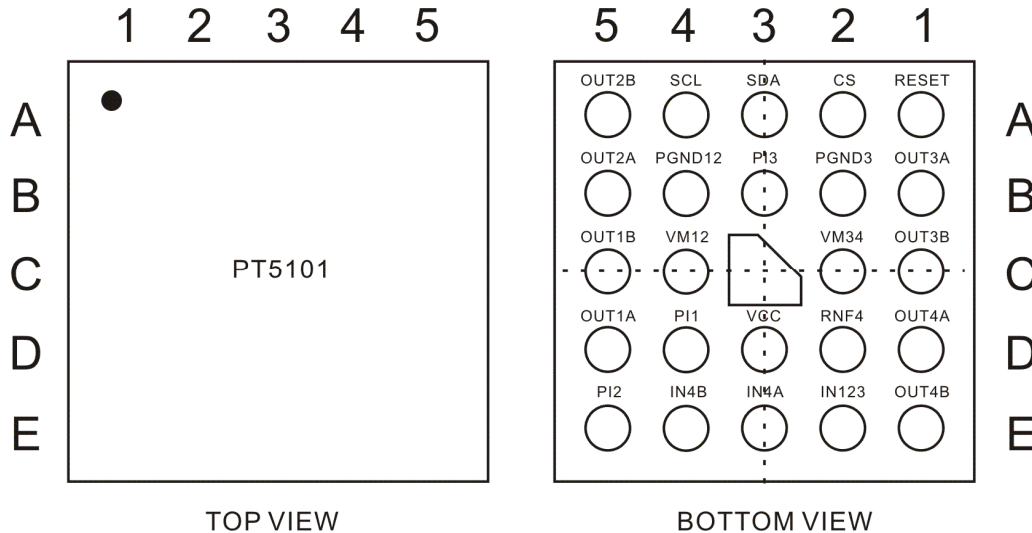
Notes:

1. FS=Full-swing
2. CV= Constant-Voltage
3. CC=Constant-Current

ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT5101	24 pins, HLA	PT5101

PIN CONFIGURATION



Note: The Exposed PAD must be connect to GND

PIN DESCRIPTION

Pin Name	I/O	Description	Pin No.
RESET	I	Logic reset	A1
CS	I	Serial data latch control	A2
SDA	I	Serial data input	A3
SCL	I	Serial clock input	A4
OUT2B	O	CH2 output B	A5
OUT3A	O	CH3 output A	B1
PGND3	GND	CH3 Power GND	B2
PI3	OUT	PI3 Output	B3
PGND12	GND	CH12 Power GND	B4
OUT2A	O	CH2 output A	B5
OUT3B	O	CH3 output B	C1
VM34	Power Supply	CH3/4 Power supply	C2
VM12	Power Supply	CH1/2 Power supply	C4
OUT1B	O	CH1 output B	C5
OUT4A	O	CH4 output A	D1
RNF4	I/O	CH4 current sense input or Power GND	D2
VCC	Power Supply	Small signal power supply	D3
PI1	OUT	PI1 Output	D4
OUT1A	O	CH1 output A	D5
OUT4B	O	CH4 output B	E1
IN123	I	CH1/CH2/CH3 Input Control Pin	E2
IN4A	I	CH4 Input Control Pin	E3
IN4B	I	CH4 Input Control Pin	E4
PI2	OUT	PI2 Output	E5
PGND12	GND	CH1/2 Power GND and pre driver GND	Bottom