IS31PM7217

Preliminary

1 CHANNEL, 1/2 H-bridge Motor Driver

GENERAL DESCRIPTION

The IS31PM7217 is a 1/2 H-bridge motor driver. It operates from a supply voltage of up to 35V and delivers motor drive current up to peak 3.0A. Typically, the IS31PM7217 is used to drive a DC brush motor. Input polarity is option able to comply with different types of MCU, Output disable control is also option able to set OUT to Hi-Z.

Internal safety protections include over-current protection (OCP), input over-voltage protection (OVP), under-voltage detection (UVLO), and thermal shutdown (OTP).

The IS31PM7217 also provide an Open-Drain FAULTB indication output while OCP, OVP UVLO and OTP occurred. And it has a built-in Internal Charge Pump, no need external capacitors and diode.

FEATURES

- ❑ Wide 6.5V to 35V Input Voltage Range
- ❑ > 2.0A Output Current
- ❑ 1 channel, ½ H-Bridge Driver
- ❑ The pins of IN and OUT of several CM7217 could be connected in parallel to increase the driving
- ❑ Low Rds On Resistance
- ❑ 3.3V and 5V Compatible Logic Supply
- ❑ Fully built-in Internal Charge Pump
- ❑ Over-Current Protection (OCP)
- ❑ Over-Voltage Protection (OVP)
- ❑ Thermal Shutdown Protection (OTP)
- ❑ Under-Voltage detection (UVLO)
- ❑ Turn off internal charge pump while UVLO occurred
- ❑ Open-Drain Fault Indication Output
- ❑ Output Disable control to set OUT = Hi-Z
- ❑ Option able Input polarity control to comply with different types of MCU

APPLICATIONS
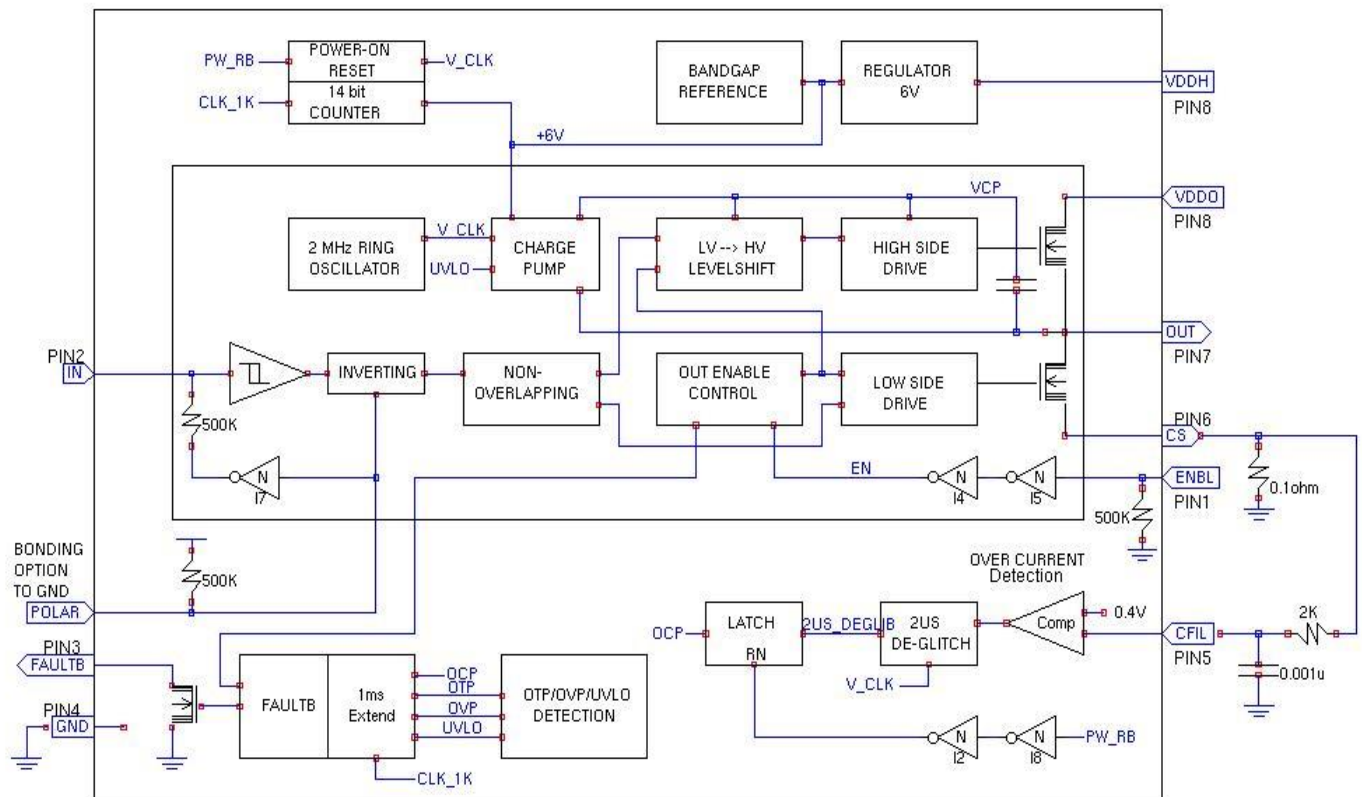
- ❑ Solenoid Drivers
- ❑ DC Brush Motor Drive

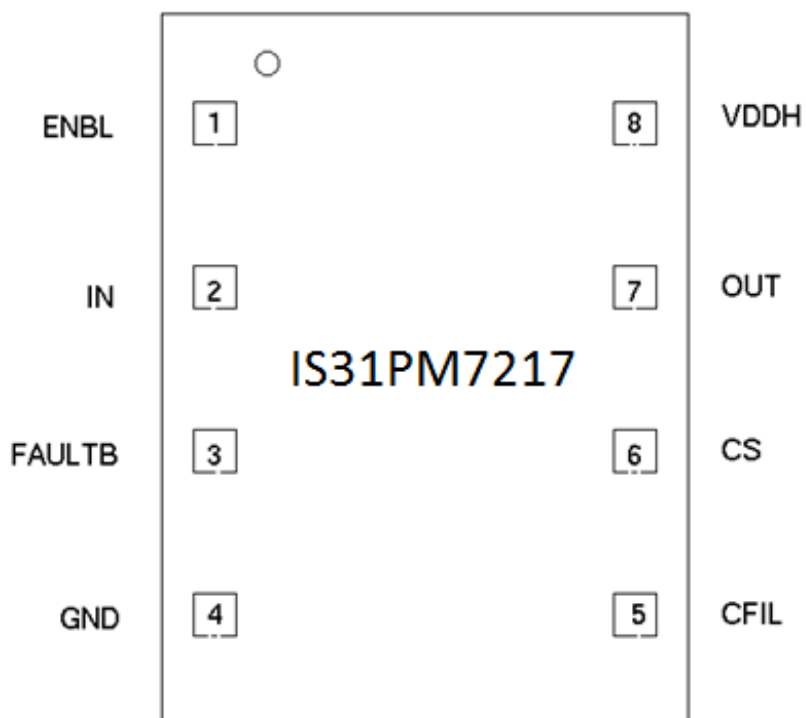Figure 1. BLOCK DIAGRAM OF IS31PM7217

PIN Connection

Figure 2. Pinning of **IS31PM7217**

PIN Definitions

PINS	Definition
ENBL (PIN1)	**Enable input.** High to enable output (OUT). Internal pulldown.
IN (PIN2)	**Input Terminal**.
FAULTB (PIN3)	**Fault indication.** Open-drain output, logic low when in fault condition (OCP, OTP, OVP and UVLO).
GND (PIN4)	**System Ground connection**
CFIL (PIN5)	**Current sense input.**
CS (PIN6)	**Current sense output.**
OUT (PIN7)	**Output terminal**
VDDH (PIN8)	**Input supply voltage**