

DESCRIPTION

The SS6811H provides a dual channel integrated motor drive solution for stage lighting and other motor integration applications. The SS6811H has two H-bridge drives. Each H-bridge can provide A maximum output current of 1.6A (at 24V and Ta = 25°C for appropriate heat dissipation). It can drive two brush-type DC motors, or A bipolar stepper motor, or A solenoid or other inductive load.

Each h-bridge power output module of the SS6811H consists of an N-type power MOSFET. The SS6811H provides a low-power sleep mode to turn off the internal circuits to achieve very low static current. This SLEEP mode is achieved by setting the SLEEP pin. Internal turn-off functions include overcurrent protection, short circuit protection, undervoltage lock protection and overtemperature protection.

The SS6811H is available in 16Pins with bare pads, 5.0mm * 6.4mm, eTSSOP package for improved heat dissipation and is lead-free with 100% wuxi plating for the pin frame.

APPLICATIONS

- Stage lighting
- Security camera
- Office automation equipment
- Console
- The robot

FEATURES

- A dual-channel H-bridge motor driver
- -- One or two brushless DC motors
- -- A stepper motor
- Buys PWM control interface
- A Low-conduction Impedance Metal oxide semiconductor Field effect transistor (MOSFET)
- -- 24V, Ta = 25°C can achieve 1.6A maximum driving current
- -- 24V, Ta= 25°C RDS(ON) 720mΩ (typical HS + LS)
- Fixed voltage 8.2~38V working range
- Sleep at a guaranteed low electrical current
- Built-in 3.3V reference voltage
- A face-mount package with a cooling fin
- Virtual Gateway Protection feature
- - Overcurrent protection (OCP)
- -- Thermal shut-off (TSD)
- -- Undervoltage latching (UVLO)

● DEVICE INFORMATION

PART NUMBER	PACKAGE	NOTE
SS6811H-ET-TP	eTSSOP16	

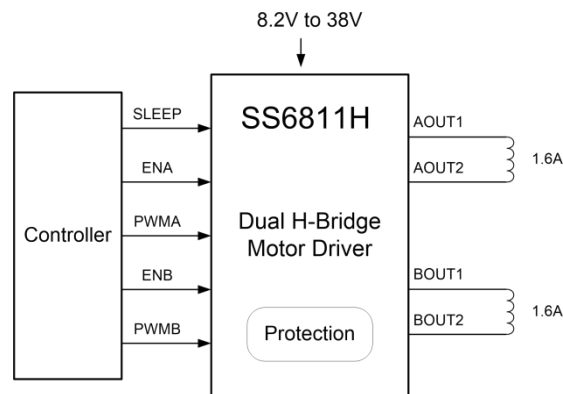
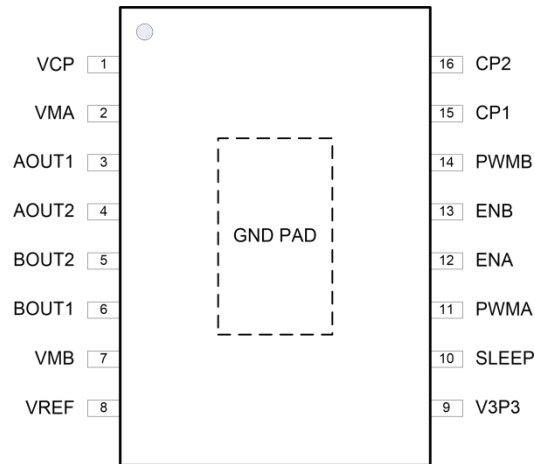


Figure 1. Simplified Schematic

PIN CONFIGURATION AND FUNCTIONS



PIN FUNCTIONS

NAME	PIN	DESCRIPTION	EXTERNAL COMPONENTS OR CONNECTIONS
POWER AND GROUND			
GND	GND PAD	Device ground	
VMA	2	Bridge A power supply	For motor power, all VMx pins need to be connected together.
VMB	7	Bridge B power supply	
V3P3	9	3.3-V regulator output	Bypass to GND with a 0.47- μ F 6.3-V ceramic capacitor. Can be used to supply VREF.
CP1	15	Charge pump flying capacitor	Connect a 0.01- μ F 50-V capacitor between CP1 and CP2.
CP2	16	Charge pump flying capacitor	
VCP	1	High-side gate drive voltage	Connect a 0.1- μ F 16-V ceramic capacitor and a 1-M Ω resistor to VM.
CONTROL			
ENA	12	Bridge A enable	Logic high to enable bridge A
PWMA	11	Bridge A phase (direction)	Logic high sets AOUT1 high, AOUT2 low
ENB	13	Bridge B enable	Logic high to enable bridge B
PWMB	14	Bridge B phase (direction)	Logic high sets BOUT1 high, BOUT2 low
SLEEP	10	Sleep mode input	Logic high to enable device, logic low to enter low-power sleep mode.
VREF	8	Bridge current set reference input	Reference voltage for winding current setting.
OUTPUT			
AOUT1	3	Bridge A output 1	Connect to motor winding A, AOUT1 \rightarrow AOUT2
AOUT2	4	Bridge A output 2	
BOUT1	6	Bridge B output 1	Connect to motor winding B, BOUT1 \rightarrow BOUT2
BOUT2	5	Bridge B output 2	