

DESCRIPTION

The SS8847T is a dual bridge motor driver which has two H-bridge drivers, and can drive two DC brush motors, a bipolar stepper motor, solenoids, or other inductive loads.

It operates from 2.7V to 16V, and can deliver load current up to 1.0A per channel. The output driver block of each H-bridge consists of P+N-channel power MOSFETS configured as an H-bridge to drive the motor windings. Each H-bridge includes circuitry to regulate or limit the winding current.

The internal safety features include sinking and sourcing current limits implemented with external sensors, under-voltage lockout, over current protection (OCP) and thermal shutdown. An over-temperature output flag is available to indicate thermal shutdown.

The SS8847T is packaged in 16-pin, 5.0mm×6.4mm eTSSOP with an exposed thermal pad on the back.

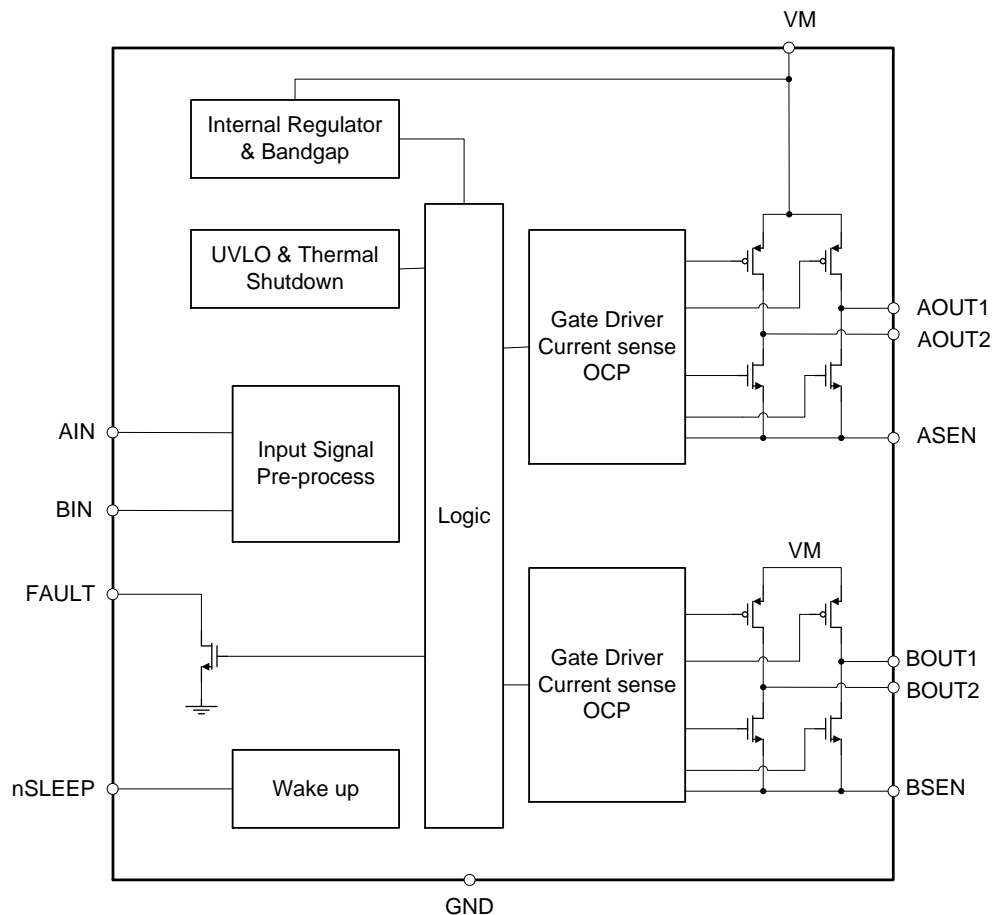
FEATURES

- Wide Power Supply Voltage Range: 2.7V to 16V
- Two Internal Full-Bridge Drivers
- Low Quiescent Current: 1.1mA
- Low Sleep Current: 1 μ A
- Thermal Shutdown and Under-Voltage Lockout Protection
- Over Current Protection (OCP)
- Over-Temperature Output Flag
- Thermally-Enhanced Surface-Mount Package
- Low MOSFET On Resistance (HS: 650m Ω ; LS: 350 m Ω)

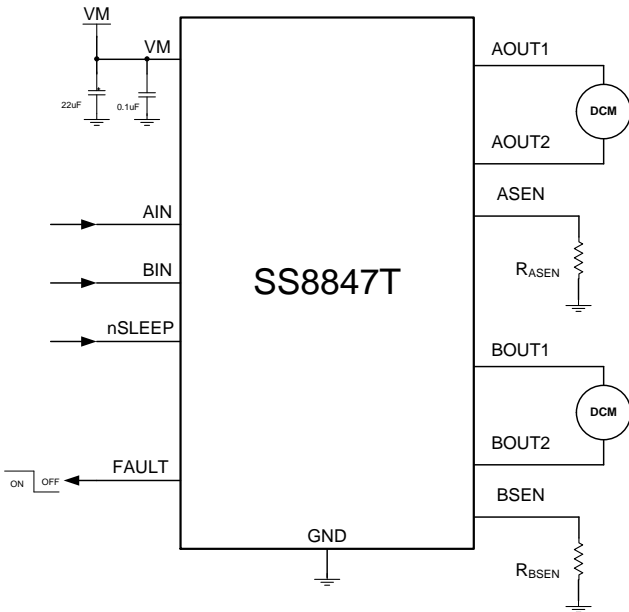
APPLICATIONS

- POS Printers
- Washers, dryers and dishwashers
- Stage lighting equipment
- Refrigerator damper and ice maker

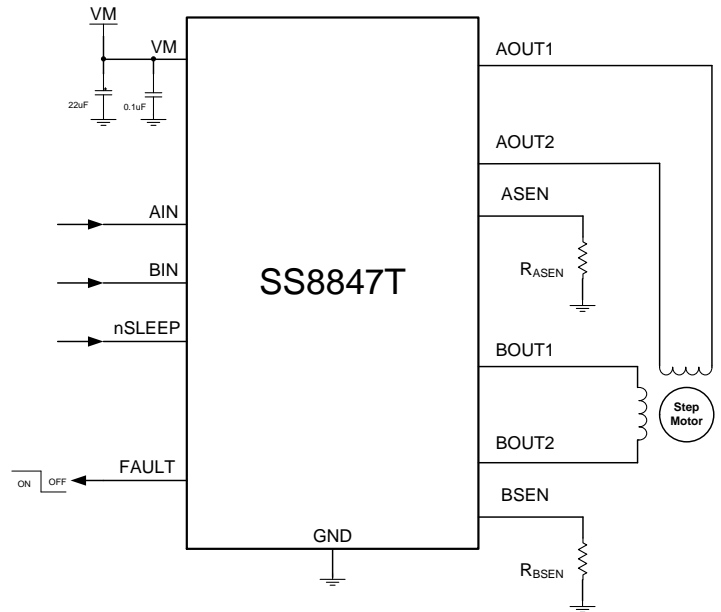
BLOCK DIAGRAM



APPLICATION CIRCUIT



Dual DC Motor Application

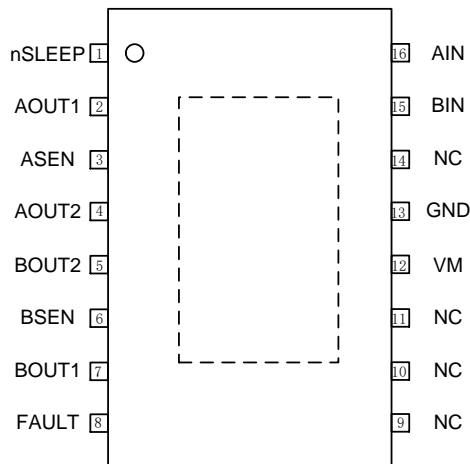


Step Motor Application

ORDER INFORMATION

Valid Part Number	Package Type	Top Code
SS8847T-ET	16-Pin, ETSSOP	SS8847T-ET

PIN CONFIGURATION



Note: The exposed pad for eTSSOP16 package need to be connected to GND.

PIN DESCRIPTION

Pin Name	I/O	Description	Pin No.
			TSSOP-16
nSLEEP	I	Sleep mode input. Set this pin to logic high to enable the device. Set this pin to logic low to go to low-power sleep mode	1
AOUT1	O	Connect to motor winding A.	2
ASEN	I/O	Channel A current sense. Connect to current sensor resistor for Channel A	3
AOUT2	O	Connect to motor winding A.	4
BOUT2	O	Connect to motor winding B.	5
BSEN	I/O	Channel B current sense. Connect to current sensor resistor for Channel B	6
BOUT1	O	Connect to motor winding B.	7
FAULT	OD	Fault output. Logic low when in over-temperature fault condition.	8
VM	Power	Device power supply. Ranges from 2.7V to 18V. A 10- μ F ceramic bypass capacitor to GND is recommended.	12
GND	GND	Device ground. (Both the GND pin and device Power PAD must be connected to ground.)	13
BIN	I	B channel input terminal to control current direction of bridge B. (220K internal pull down resistor to GND.)	15
AIN	I	A channel input terminal to control current direction of bridge A. (220K internal pull down resistor to GND.)	16
NC	-	No connect	9,10,11,14