

0.6A 150KHz 100V Buck DC to DC Converter

Description

The FH4832 is a 150KHz fixed frequency PWM buck (step-down) DC-DC converter, capable of driving a 0.6A load with high efficiency, low ripple and excellent line and load regulation. Requiring a minimum number of external components, the regulator is simple to use and include internal frequency compensation and a fixed-frequency oscillator.

The PWM control circuit is able to adjust the duty ratio linearly from 0 to 100%.

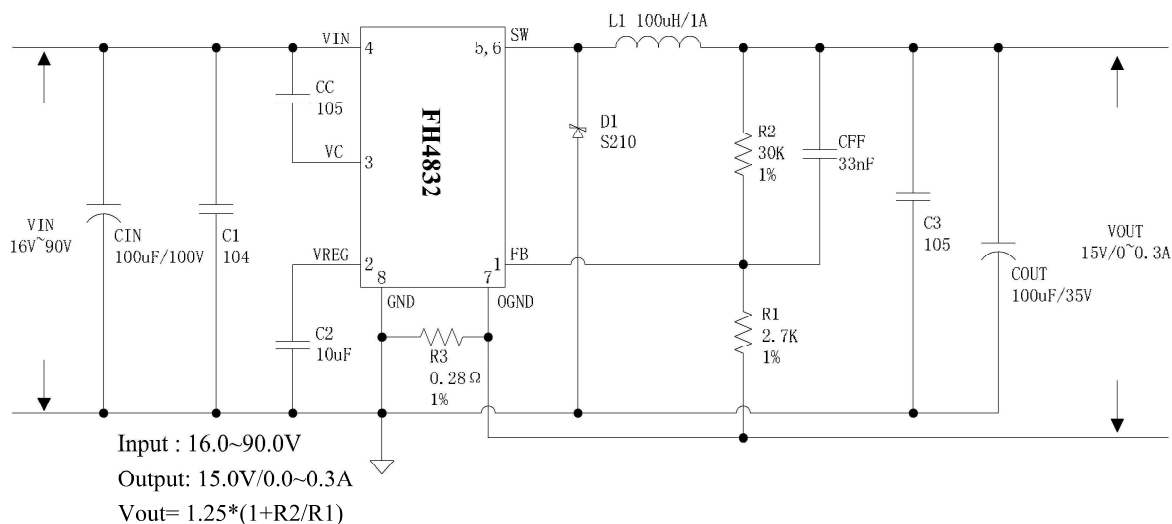
Applications

- Ebike Controller Power Supply
- Telecom / Networking Equipment

Features

- Operation Voltage from 12V to 90V
- Maximum Duty Cycle up to 100%
- Minimum Drop Out 0.5V
- Adjust VOUT from 1.25V to 20V
- Max. IOUT=0.6A at VOUT=5V
- Max. IOUT=0.3A at VOUT=12V or 15V
- Max. output power less than 5.0W
- Fixed 150KHz Switching Frequency
- Internal Optimize HV Power MOSFET
- High efficiency up to 85%
- Excellent line and load regulation
- Built in output short Protection Function
- Built in current limit function
- SOP8-EP (Exposed PAD) package

Typical Application Circuit



Note:

- R3 for limit maximum output current,
R3 choose 0.15ohm in $V_{OUT} > 5V$ application;
R3 choose 0.28ohm in $V_{OUT} > 5V$ application.

Figure 1. FH4832 Typical Application Circuit

Pin Configurations

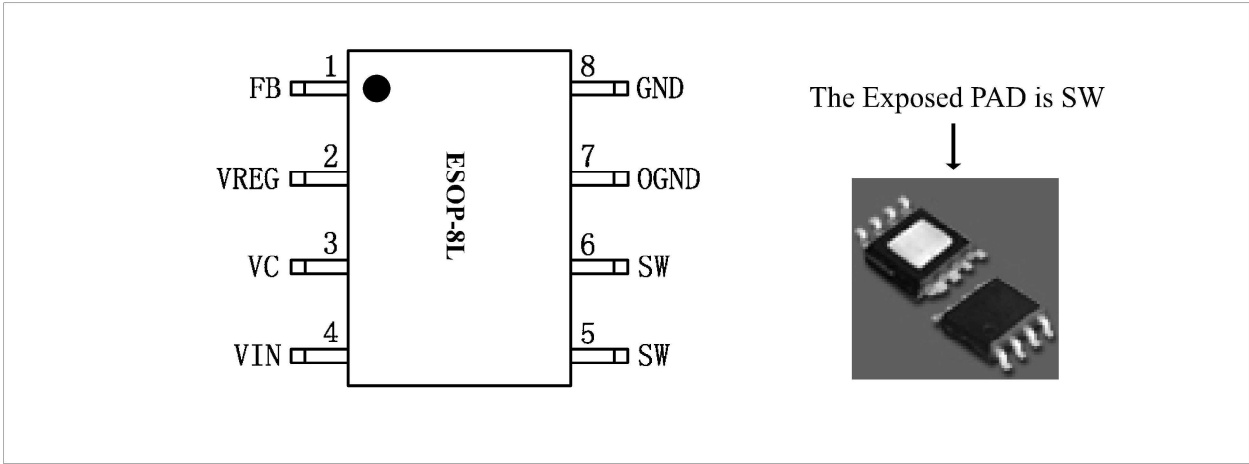


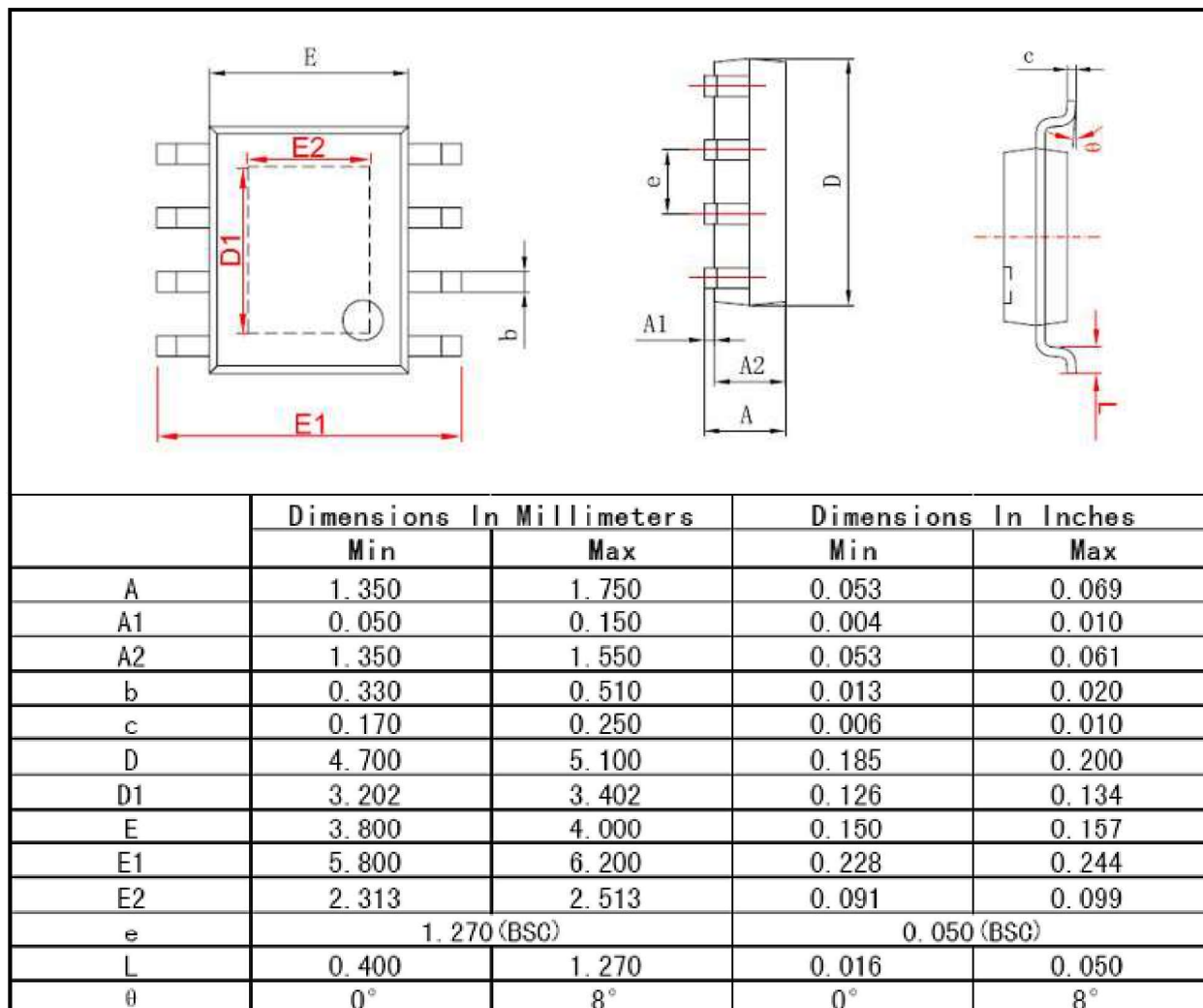
Figure 2. Pin Configuration of FH4832 (Top View)

Table 1 Pin Description

Pin Number	Pin Name	Description
1	FB	Feedback Pin (FB). Through an external resistor divider network, Feedback senses the output voltage and regulates it. The feedback threshold voltage is 1.25V.
2	VREG	Supply Voltage Input Pin. A 10 μ F ceramic decoupling capacitor is required. An external voltage between 7.0V and 9.0V can be applied to this pin to reduce internal power dissipation.
3	VC	Internal Voltage Regulator Bypass Capacity. In typical system application, The VC pin connect a 1uF capacitor to VIN.
4	VIN	Supply Voltage Input Pin. FH4832 operates from 12.0V to 90.0V DC voltage. Bypass Vin to GND with a suitably large capacitor to eliminate noise on the input.
5/6	SW	Power Switch Output Pin (SW). Output is the switch node that supplies power to the output. The exposed PAD is SW.
7	OGND	Output Ground Pin.
8	GND	Ground Pin. Care must be taken in layout. This pin should be placed outside of the Schottky Diode to output capacitor ground path to prevent switching current spikes from inducing voltage noise into FH4832.

Package Information

ESOP-8L



Ordering Information

Order Information	Marking ID	Package Type	Packing Type Supplied As
FH4832S08	FH4832	ESOP-8L	2500 Units on Tape & Reel

Pb-free products, as designated with “E1” suffix in the par number, are RoHS compliant.