SLG59H1343C-EVB

High Voltage GreenFET Evaluation Board #8

Description

This evaluation board provides full range of evaluation features for SLG59H1343C load switch.

Specifications

The High Voltage GreenFET Evaluation Board #8 is working with the following operating conditions:

- V_{IN} Voltage – 2.7 V - 5.5 V
- Load Current – up to 1.5 A

Features

- Screw Terminals for VIN, VOUT, GND
- Pin headers for VIN, VOUT sense probe connection
- Pin headers for logic signals
- Pin headers for RSET ARRAY
- Pin header for ON configuration

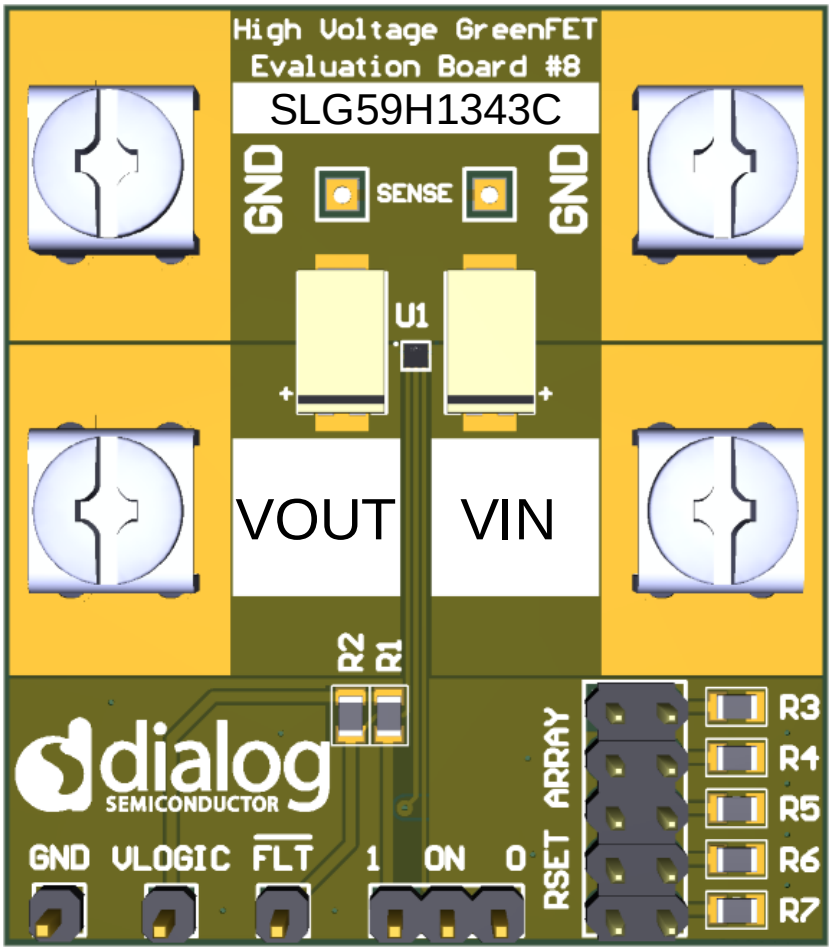


Figure 1. High Voltage GreenFET Evaluation Board #8

Contents

Figures

1. Functional Description

This Evaluation Board provides full evaluation capabilities for the SLG59H1343C load switch. It has all the necessary screw terminals to connect input voltage, output load, connectors to measure main parameters and configure input signals.

The main components and their basic functions are shown in Figure 2.

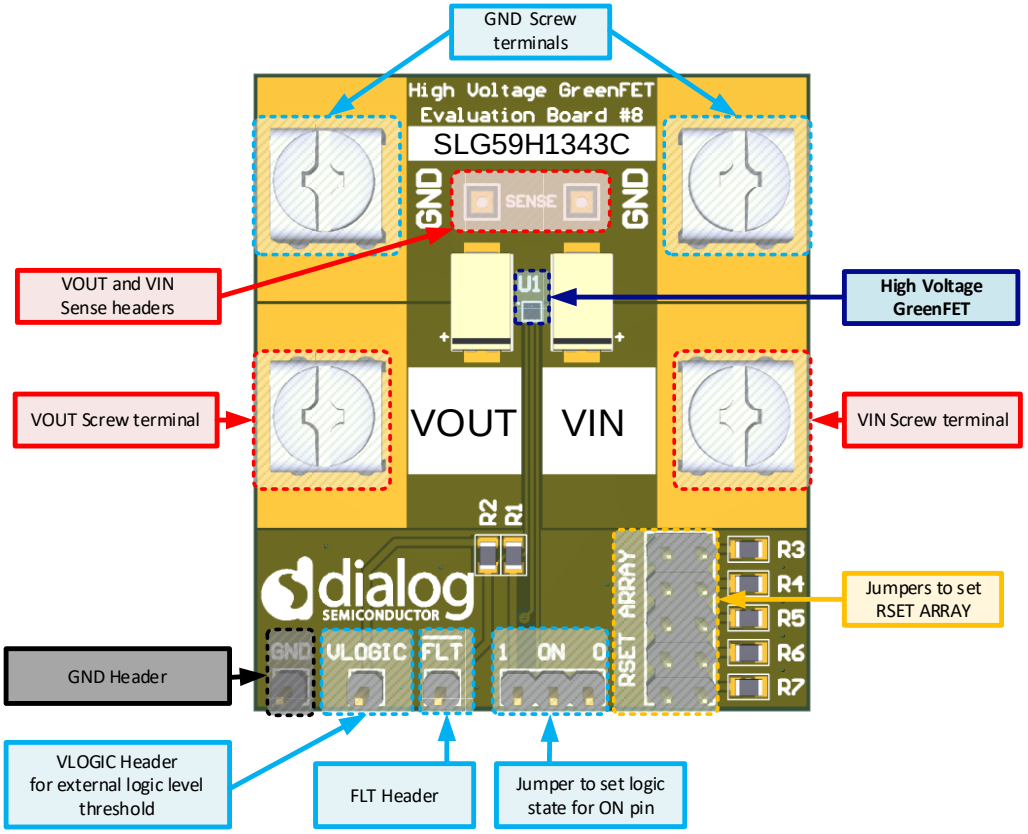


Figure 2. High Voltage GreenFET Evaluation Board #8 Main Blocks Description

2. Evaluation Board Features

2.1 Screw Terminals

Screw Terminals are used for connecting VIN, GND, and VOUT to power supply and load:

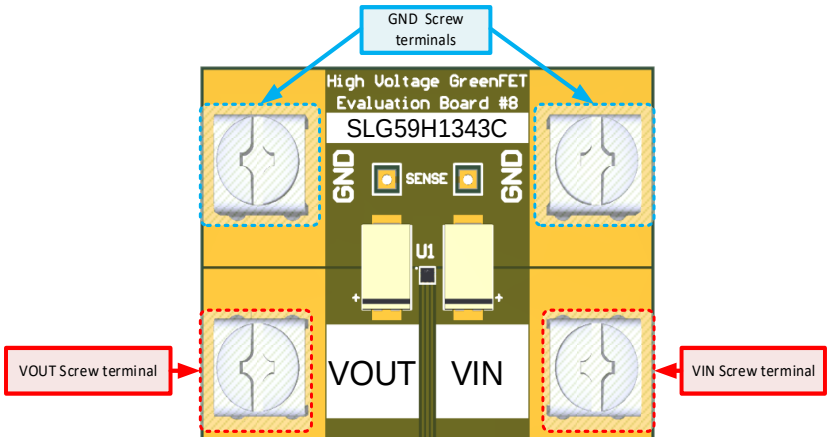


Figure 3. Screw Terminals

Screw terminal dimensions are shown in Figure 4.

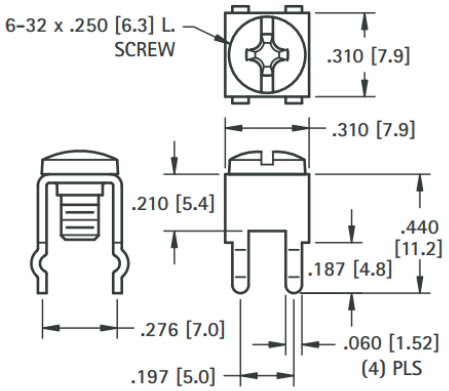


Figure 4. Screw Terminal Dimensions

2.2 Setting Output Current Limit with R_{SET}

HV GreenFET Evaluation Board #8 has a pin header array for setting five different R_{SET} values.

The R_{SET} resistors can be chosen by using jumpers:

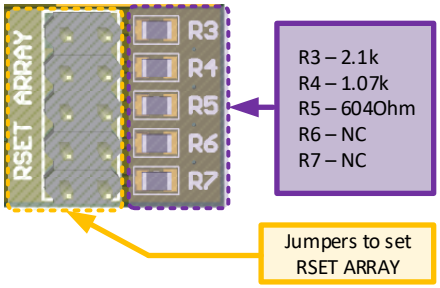


Figure 5. Pin Headers for RSET Array

2.3 External VLOGIC

VLOGIC signal should be powered from an external source. This voltage can be applied as V_{IH} for ON signal and pull-up for FLT signal.

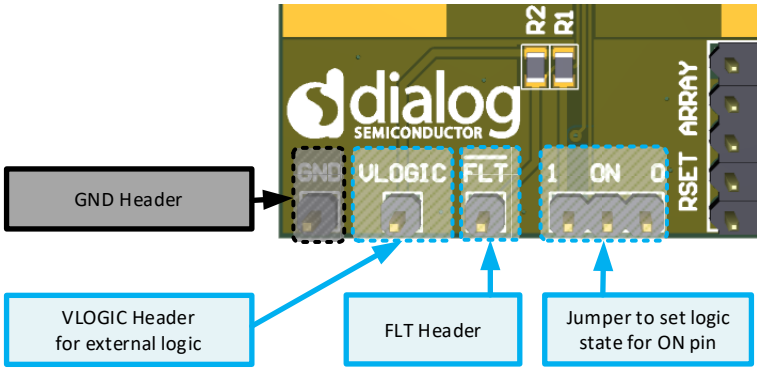


Figure 6. External VLOGIC

2.4 4-Wire (Kelvin) Connection for RDS_{ON} Measurements

Evaluation Board supports RDS_{ON} measurements by using 4-wire Kelvin connection. The connection scheme and Test Points (TP) location on PCB are shown on Figure 7 and Figure 8. Please note that TPs cannot handle high current and are dedicated only for RDS_{ON} measurements.

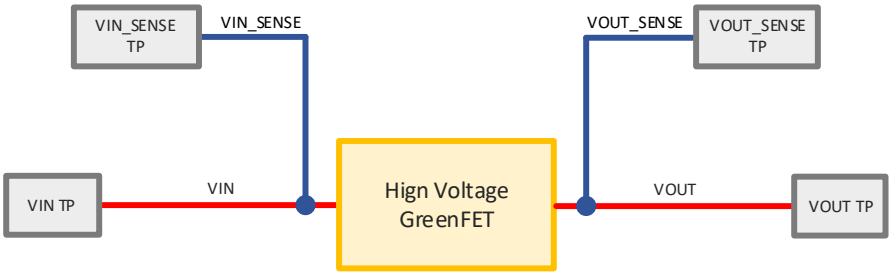


Figure 7. Block Diagram for 4-Wire Kelvin RDS_{ON} Measurements

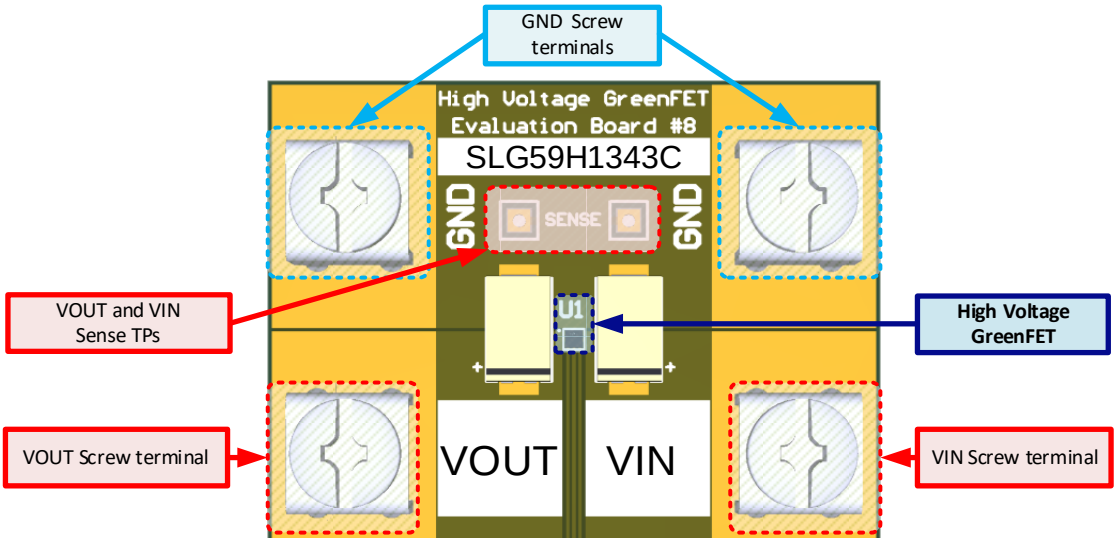
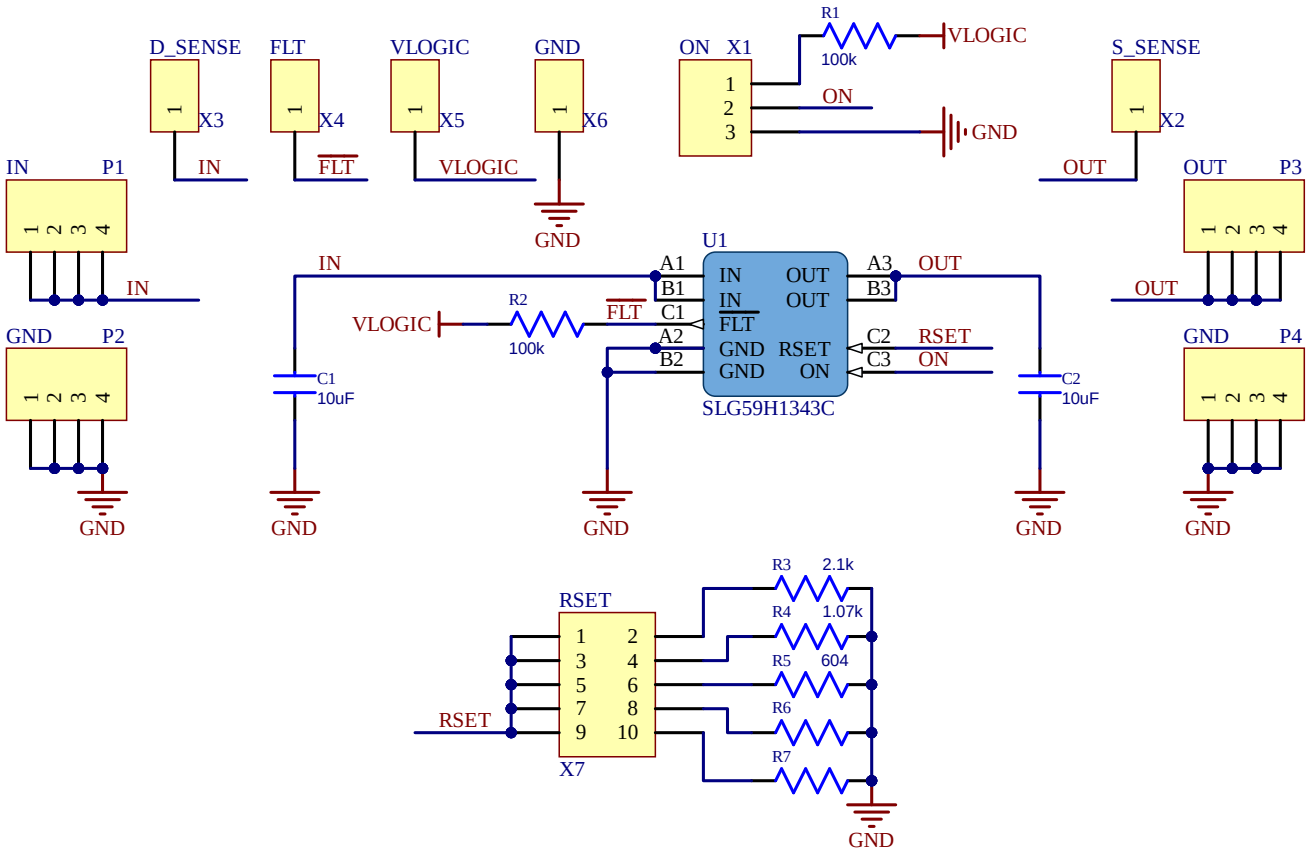


Figure 8. Location of 4-Wire Kelvin Sense TPs

3. Schematic



4. BOM

#	Designator	Manufacturer Part Number	Manufacturer	Quantity
1	C1, C2	GRM21BR61H106KE43L	Murata Electronics	2
2	R1, R2	RMCF0805FT100K	Stackpole Electronics Inc.	2
3	R3	ERJ-6ENF2101V	Panasonic Electronic Components	1
4	R4	ERJ-6ENF1071V	Panasonic Electronic Components	1
5	R5	RMCF0805FT604R	Stackpole Electronics Inc.	1
6	P1, P2, P3, P4	TERM SCREW 6-32 4 PIN PCB	Keystone Electronics	4
7	U1	SLG59H1343C	Renesas Electronics America Inc	1
8	X1	M20-9990345	Harwin Inc.	1
9	X2, X3, X4, X5, X6	861400011YO2LF	Amphenol ICC (FCI)	5
9	X7	TSW-105-07-F-D	Samtec Inc.	1
10	Jumper	NPC02SXON-RC	Sullins Connector Solutions	2

5. Ordering Information

Part Number	Description
SLG59H1343C-EVB	High Voltage GreenFET Evaluation Board #8

6. Revision History

Revision	Date	Description
1.00	May 12, 2025	Initial release