



GreenFET3 SLG59M1460V

Layout Guide

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Description

The SLG59M1460V is a 30 m Ω , ~ 2.0 A single-channel load switch that is able to switch 1.0 V to 3.3 V power rails. The product is packaged in an ultra-small 1.0 x 1.6 mm package.

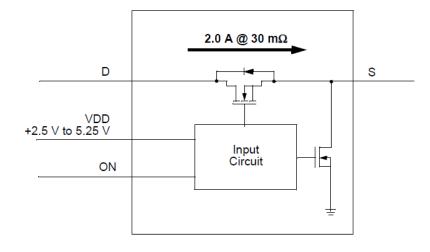


Figure 1: SLG59M1460V Block Diagram

This layout guide provides some important information about the PCB layout of SLG59M1460V applications.

SILEGO FC-TDFN 1.0x1.6-8L PKG

Unit: um

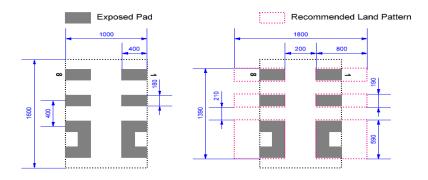


Figure 2. SLG59M1460V Package Dimensions and Recommended Land Pattern

Please solder your SLG59M1460V here

D_SENSE3

D_SENSE3

D_SENSE3

D_SENSE3

D_SENSE4

D_SENSE3

D_SENSE4

D_SENSE5

D_SENSE5

D_SENSE5

D_SENSE6

D_SENS

Figure 3. SLG59M1460V Evaluation Test Board

Note: Evaluation board has D_Sense and S_Sense pads. Please use them only for RDS(ON) evaluation.

2. Power and Ground Planes

- 2.1. The VDD pin needs are 0.1 uF and 10 uF external capacitors to smooth pulses from the power supply. Locate these capacitors close to PIN1.
- 2.2. The trace length from the control IC to the ON pin should be as short as possible and must avoid crossing this trace with power rails.
- 2.3. The D/VIN and S/VOUT pins carry significant current. Please note how the D/VIN and S/VOUT pads are placed directly on the power planes in Figure 3, which minimizes the Rds(ON) associated with long, narrow traces. The D/VIN, S/VOUT and GND pins dissipate most of the heat generated during high-load current condition. The layout shown in Figure 3 is illustrating a proper solution for heat to transfer as efficiently as possible out of the device.
- 2.4.Leave PIN7 floating.
- 2.5. The GND pin (PIN8) should be connected to GND.
- 2.6. 2 oz. copper is recommended for higher currents.