



# GreenFET3 SLG59M1736C

Layout Guide

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### **Description**

The SLG59M1736C is a 33 m $\Omega$ , ~ 2.2 A single-channel load switch that is able to switch 2.5 V to 5.5 V power rails. The product is packaged in an ultra-small 0.8 x 0.8 mm package.

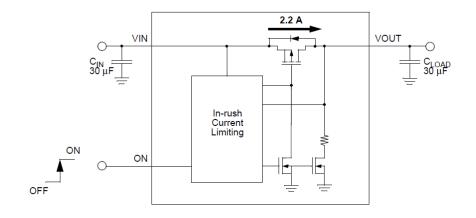


Figure 1: SLG59M1736C Block Diagram

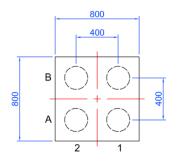
This layout guide provides some important information about the PCB layout of SLG59M1736C applications.

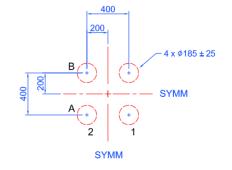
#### SILEGO WLCSP 0.8x0.8-4L PKG

Unit: um









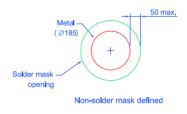




Figure 2. SLG59M1736C Package Dimensions and Recommended Land Pattern

#### 2. Power and Ground Planes

- 2.1.The trace length from the control IC to the ON pin (PIN1) should be as short as possible and must avoid crossing this trace with power rails.
- 2.2.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<sub>ON</sub> 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.
- 2.3. The GND pin (A2) should be connected to GND.
- 2.4. 2 oz. copper is recommended for higher currents.

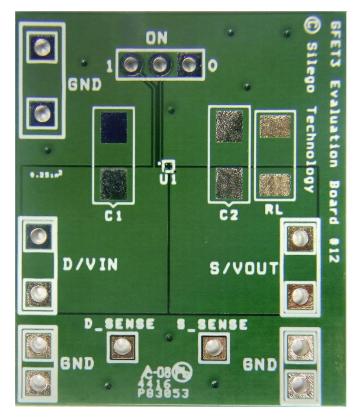


Figure 3. SLG59M1736C Evaluation Test Board

Note: Evaluation board has D\_Sense and S\_Sense pads. Please use them only for RDS(ON) evaluation.

## 3. Basic Test Setup and Connections

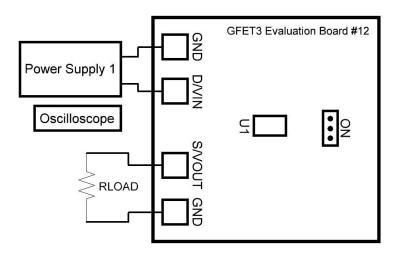


Figure 5. Typical connections for GFET3 Evaluation

### 3.1 EVB Configuration

- Connect oscilloscope probes to D/VIN, S/VOUT, ON, etc.
- 2. Turn ON Power Supply and set desirable  $V_{\text{IN}}$  in range of 2.5V to 5.5 V.
- 3. Switch ON to High or Low to evaluate GFET3 operation.