GLF1592T, GLF1593T, GLF1593LT
2 A Low Input Voltage Power Load Switch

DESCRIPTION

The GLF1592T, GLF1593T and GLF1593LT are fully integrated 2 A N-channel load switches. The device is ideal for the mobile computing and data storage markets as a high-performance solution for load switch applications.

The GLF1592T, GLF1593T and GLF1593LT support ultra-low VIN range applications, with an input supply voltage range of 0.6 V to 5.5 V and does not require another additional power supply.

The GLF1592T, GLF1593T and GLF1593LT are available in ultra-thin wafer level chip scale package (WLCSP) measuring 0.67 mm x 1.02 mm x 0.35 mm with a 0.35 mm pitch. This helps user to save board space.

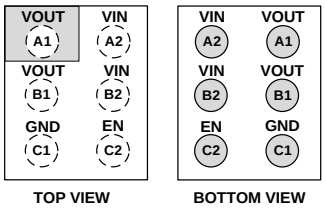
FEATURES

- Input Voltage Range, V_{IN}: 0.6 V to 5.5 V
- Low On-Resistance, R_{ON}: 24 mΩ at 3.3 V_{IN}
- 2.0 A Maximum Continuous Output Current
- Low Quiescent Current, I_Q
  - 2.5 µA Typ. at V_{IN} = 0.6 V
  - 16 µA Typ. at V_{IN} = 3.3 V
- Low Shutdown Current, I_{SD}
  - 4 nA Typ. at V_{IN} = 0.6 V
  - 10 nA Typ. at V_{IN} = 3.3 V
- Output Discharge Switch:
  - Only GLF1593T and GLF1593LT
- Reverse Current Blocking When Disabled

PRODUCT TABLE

Eval Board Orderable Info	Part Number	Top Mark	R_{ON} (Typ.)	Output Discharge	EN Activity	Package
EV052-GLF1592T	GLF1592T-S97	GW	24 mΩ	NA	High	0.67 mm x 1.02 mm x 0.35 mm Thin WLCSP
EV052-GLF1593T	GLF1593T-S97	FY		150 Ω	High	
EV052-GLF1593LT	GLF1593LT-S97	GY			Low	

PIN CONFIGURATION AND DEFINITION

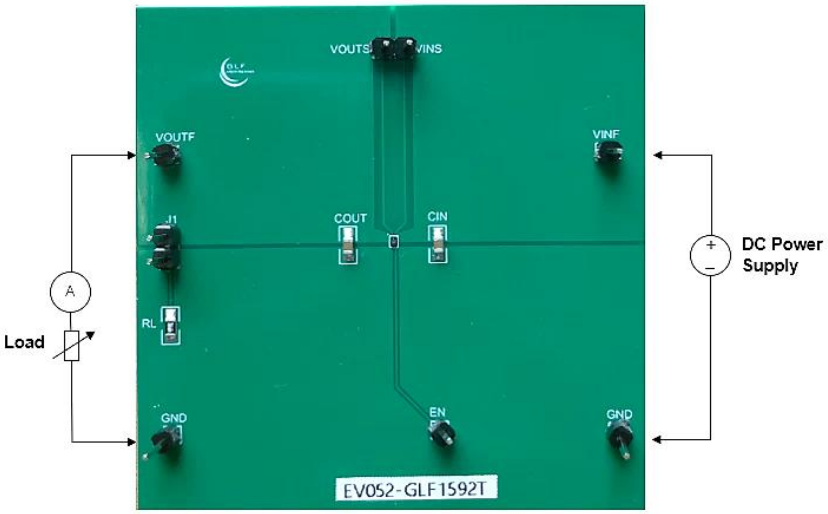


0.67 mm x 1.02 mm WLCSP

Pin #	Name	Description
A1, B1	VOUT	Switch Output
A2, B2	VIN	Switch Input.
C1	GND	Ground
C2	EN	Enable to control the switch

Copyright © 2026 GLF Integrated Power. All Rights Reserved.

TEST SETUP

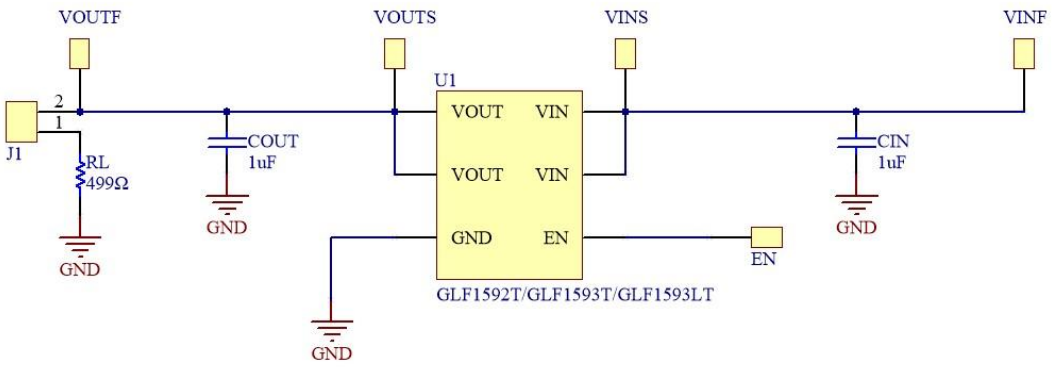


QUICK START GUIDE

The evaluation board EV052 is easy to set up to evaluate the performance of GLF1592T, GLF1593T and GLF1593LT.

1. Preset the VIN voltage between 0.6 V to 5.5 V.
2. The load resistors, RL=499 Ω, has been populated on the top of the PC board. Short the J1 to use the RL. To increase the output current, connect an electronic load to VOUT and GND. The output current for the GLF1592T, GLF1593T and GLF1593LT is rated for 2 A maximum output continuous current. Please ensure this absolute maximum is not exceeded.
3. For the GLF1592T and GLF1593T, VOUT will turn on when the EN pin is connected to the VIN pin with a wire or when a voltage higher than 1V is applied to the EN pin. For the GLF1593LT, VOUT will turn on when EN is connected to GND.
4. VINS and VOUTS can be used to connect an oscilloscope or a multimeter.

SCHEMATIC



Copyright © 2026 GLF Integrated Power. All Rights Reserved.

BILL OF MATERIALS

Qty	Reference	Value	Part Description	Manufacturer/Part Number
1	U1	GLF1592T, GLF1593T, GLF1593LT	2 A Load Switch	GLF Integrated Power
2	CIN, COUT	1.0 µF	Cap., X7R, 50V, 10% 0805	YAGEO, CC0805KKX7R9BB105
1	RL	499 Ω	Output Resistor	YAGEO, RC0805FR-07499RL
2	J1, J2	Jumper	Jumper	

PRINTED CIRCUIT BOARD LAYOUT

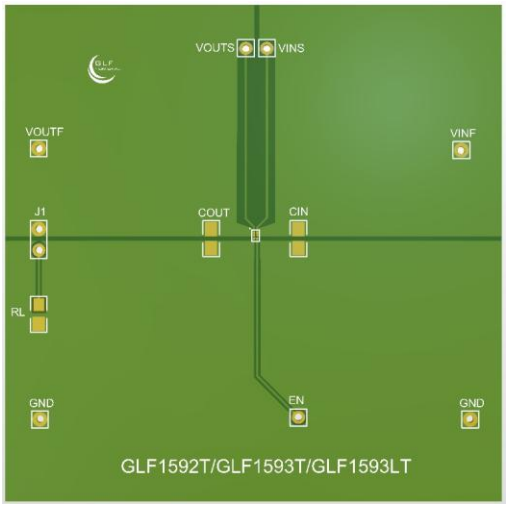


Fig 1. Top Layer

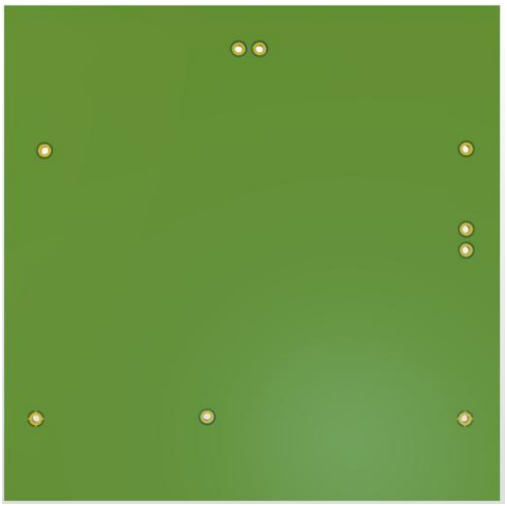


Fig 2. Bottom Layer

NOTICE: The evaluation board provided by GLF Integrated Power is intended for use for ENGINEERING DEVELOPMENT, OR EVALUATION PURPOSES ONLY and is not for any commercial use. The user assumes all responsibility and liability for proper and safe handling of the goods.

Copyright © 2026 GLF Integrated Power. All Rights Reserved.