

## GLF2351B

### 2.5 A , High Precision Current Limit Power Switch

#### DESCRIPTION

The GLF2351B is an advanced technology fully integrated power switch for applications required precision output current limiting.

The GLF2351B features also various protection functions such as under voltage lockout, true reverse current blocking (TRCB), short circuit protection, and thermal shutdown.

The GLF2351B provides a built-in output voltage slew rate control to limit the inrush current and voltage surges. The FLGB output pin can be used to send a signal of fault events to the system controller. The integrated thermal shutdown (TSD) insures complete protection for the switch during output current limit and short circuit conditions. The GLF2351B is an ideal switch for USB power supply.

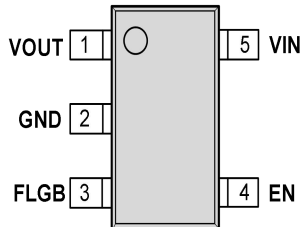
#### FEATURES

- Input Range: 2.5 V to 5.5 V
- Fixed Constant Output Current Limit
- Low  $R_{ON}$ : 40 m $\Omega$  Typ. @ 5 V<sub>IN</sub>
- Ultra-Low  $I_Q$ : 17  $\mu$ A Typ. @ 5 V<sub>IN</sub>
- Ultra-Low  $I_{SD}$ : 60 nA Typ. @ 5 V<sub>IN</sub>
- Under Voltage Lockout Protection
- Output Voltage Slew Rate Control
- True Reverse Current Blocking Protection
- Short Circuit Protection
- Deglitched Fault Flag Indication
- Integrated Output Discharge Switch
- Thermal Shutdown Protection

#### PRODUCT TABLE

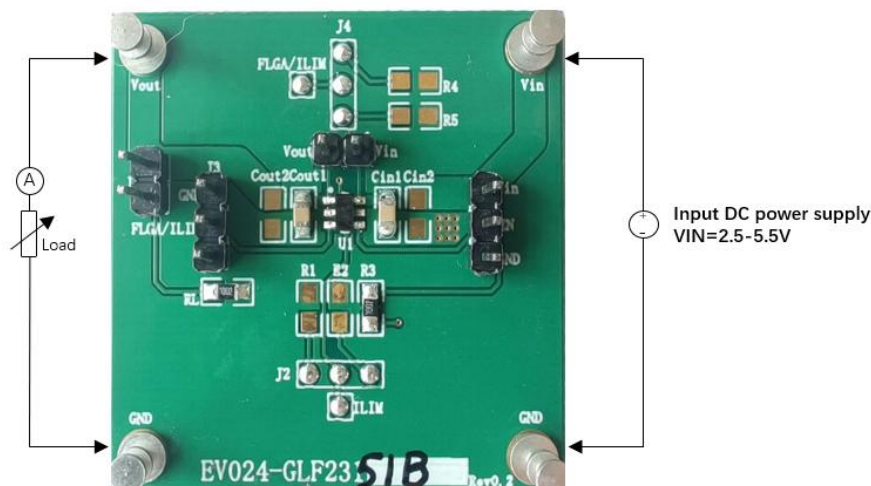
Part Number	Top Mark	Current Limit ILIM	Output Discharge	Fault Flag FLGB	EN Activity	Package
GLF2351B-T1G7	JF	2.5 A Fixed	300 $\Omega$	Yes	High	SOT23-5L

## DEVICE PACKAGE AND PINOUT



Pin #	Name	Description
1	VOUT	Switch Output
2	GND	Ground
3	FLGB	Flag pin goes low to indicate OCP, SC, TRCB, UVLO and TSD fault conditions
4	EN	Active high switch output enables to control the switch
5	VIN	Switch Input. Supply voltage for IC

## TEST SETUP



## QUICK START GUIDE

1. The evaluation board EV024 is easy to set up to evaluate the performance of GLF2351B. Preset the input power supply to the desired voltage between 2.5 V to 5.5 V.

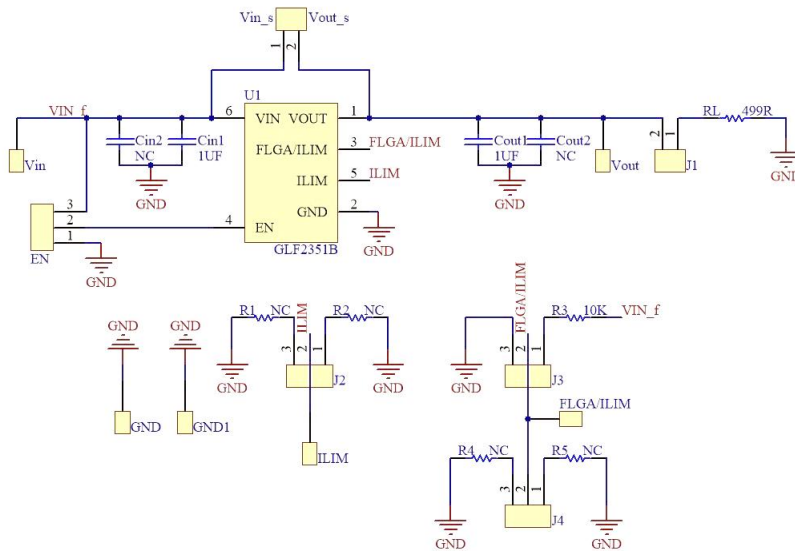
2. The load resistor,  $R_L=499 \Omega$ , has been populated on the top of the PCB board. Short the J1 to use the  $R_L$ . To increase the output current, connect an electronic load to VOUT and GND. The GLF2351B is rated for 2.5 A maximum continuous output current. Please ensure the absolute maximum is not exceeded.

3. Connect the positive and negative terminals of the input power supply to VIN and GND terminals respectively. VIN\_Sense and VOUT\_Sense can be used for measurement points.

4. For GLF2331B-T1G7, you can: short pin 1 (J3) to pin 2 (J3) or short pin 2 (J3) to pin 3 (J3) to R3 connected to VIN and observe the FLGB signal.

5. Turn on the input power supply. Connect EN to Vin with a jumper, and VOUT will be turned on.

## SCHEMATIC



## BILL OF MATERIALS

Qty	Reference	Value	Part Description	Manufacturer/Part Number
1	U1	GLF2351B	Current Limit Power Switch	GLF Integrated Power
2	Cin1, Cout1	1 $\mu$ F	Cap., X7R, 1 $\mu$ F, 50 V, $\pm$ 10%, 0805	Yageo/CC0805KRX7R9BB105
1	R3	10 K $\Omega$	Res., RC, 10 K $\Omega$ , 1/8W, $\pm$ 1%, 0805	Yageo/RC0805FR-0710KRL
1	RL	499 $\Omega$	Load Resistor	YAGEO, RC0805FR-07499RL
2	J2, J3,	Jumper	Jumper, 2.54 mm, 3 PIN	-
1	J1	Jumper	Jumper, 2.54 mm, 2 PIN	-
4	VIN, VOUT, GND	-	1514-2	-

## PRINTED CIRCUIT BOARD LAYOUT

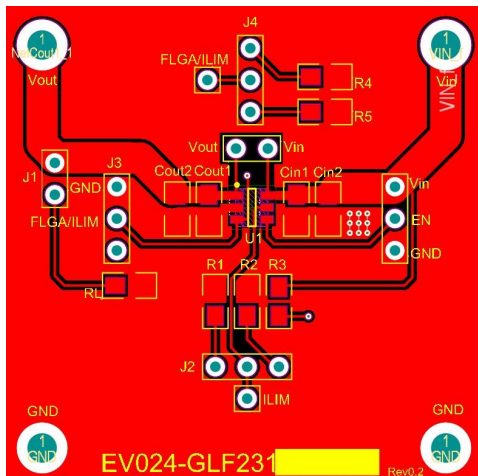


Fig 1. Top Layer

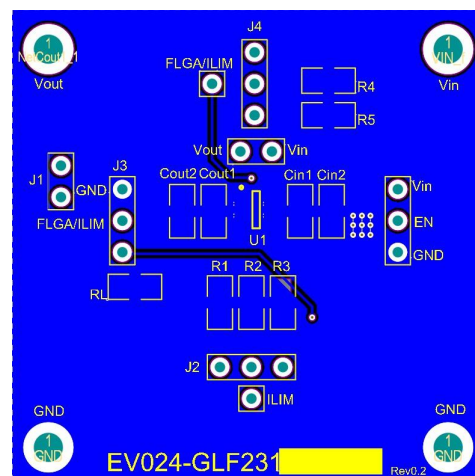


Fig 2. Bottom Layer

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.