GLF9900
240 nA I_Q, Low-Dropout Linear Regulator

DESCRIPTION

The GLF9900 are an ultra-low power and low dropout regulator designed for battery powered smart devices.

The GLF9900 provides up to 300 mA output current with typical quiescent current of only 240 nA. The GLF9900 features an over current protection by limiting output current. When the output of the device is shorted, the output current is limited to preset level and the thermal shutdown prevents the device from the thermal runaway.

The GLF9900 is available in SOT23-5L, SOT23-3L packages.

FEATURES

- Output Current:
  - GLF9900-33T1 up to 300 mA
  - GLF9900-33T3 up to 200 mA
- Ultra-Low Quiescent Current, I_Q:
  - 240 nA Tpy at no load
- Output Voltage fixed 3.3V
- Output Voltage Accuracy: ± 2.5 %
- Low Dropout:
  - 144 mV Typ at 100 mA
  - 334 mV Typ at 200 mA
  - 600 mV Typ at 300 mA
- Over Current Protection and Current Foldback
- Short Circuit Protection
- Thermal Shutdown Protection
- Compatible with Ceramic Capacitor

PRODUCT TABLE

Eval Board Ordering Info	Part Number	Top Mark	Output Voltage	Output Current	EN	Package
EV042-GLF9900	GLF9900-33T1G7	HK	3.3 V	300 mA	High	SOT23-5L
EV042-GLF9900	GLF9900-33T3G7	HJ	3.3 V	200 mA	-	SOT23-3L

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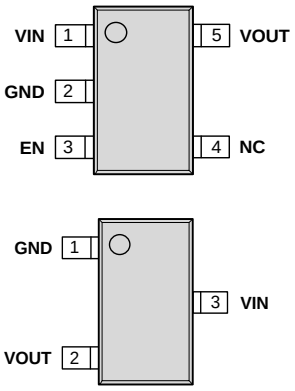
EVALUATION BOARD & DEVICE PACKAGE

PIN CONFIGURATION AND DEFINITION



Package: SOT23-5L, SOT23-3L

Name	Pin Number		Description
	SOT23-5L	SOT23-3L	
VIN	1	3	Regulator Input. Supply voltage for IC.
VOUT	5	2	Regulator Output.
GND	2	1	Ground
EN	3	-	Enable to control regulator output. Do not leave the EN pin floating
NC	4	-	No connection

QUICK START GUIDE

The evaluation board EV042 is easy to set up to evaluate the performance of GLF9900.

1. Preset the input power supply to the desired voltage between VOUT+1 V to 5.5V.
2. The load resistor, RL=150Ω, has been populated on the PCB short the J2 to use.
3. The maximum continuous output current for GLF9900-33T1 is rated for 300 mA, GLF9900-33T3 is rated for 200mA. Please ensure this absolute maximum is not exceeded.
4. Connect the positive and negative terminals of the input power supply to VIN and GND terminals respectively. Turn on the input power supply.
5. Configure the J1 EN jumper as required. there is no EN control for GLF9900-33T3, it can output directly after turning on the power.

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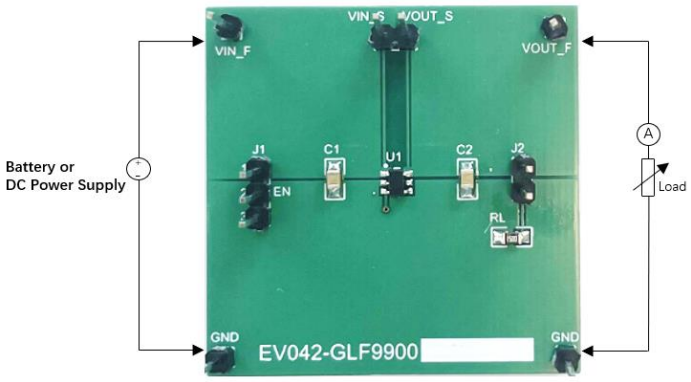
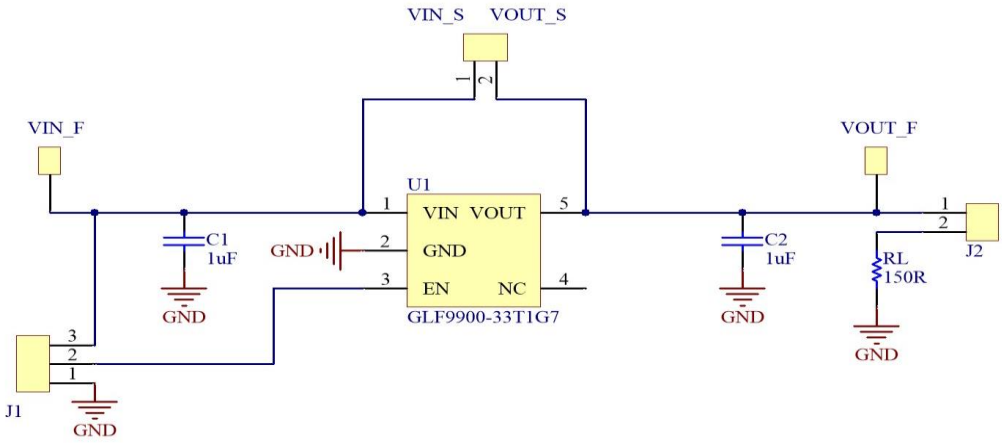
TEST SETUP



SCHEMATIC



BILL OF MATERIALS

Qty	Reference	Value	Part Description	Manufacturer/Part Number
1	U1	GLF9900	GLF9900	GLF Integrated Power
2	C1, C2	1μF	Cap., X7R, 16V, 5%, 0805	YAGEO CC0805JKX7R7BB105
1	RL	150Ω	Res., 1/8W, 1%, 0805	YAGEO RC0805FR-07150RL
2	J1, J2	Jumper	Jumper	

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PRINTED CIRCUIT BOARD LAYOUT

Fig 1. Top Layer

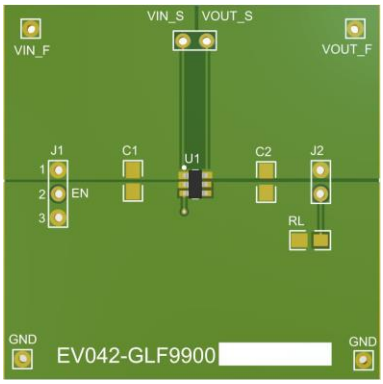
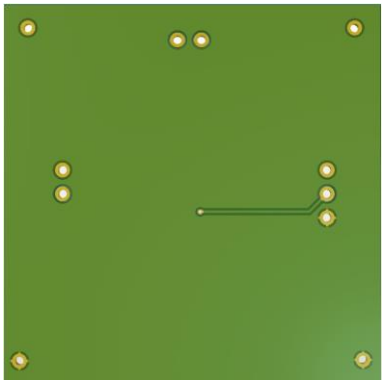


Fig 2. Bottom Layer



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