

GLF76121, GLF76121S, GLF76121L Nano-Current Power Integrated Switch with Reset Timer

DESCRIPTION

The GLF76121, GLF76121S, and GLF76121L are an ultra-efficient I_QSmart™ load switch with an integrated reset timer for wearables and IoT devices.

The /SRO pin offers a true reset function enabling the load switch to completely disconnect the load from the input battery after a reasonable long delay time. After the reset period, the main switch of the GLF76121, GLF76121S, and GLF76121L reconnect the output load to the input battery for normal operation. The GLF76121 / GLF76121S offers 6/2.95 second delay time before the 750 ms / 360 ms reset duration respectively while the GLF76121L has 12 second delay time and then 750 ms reset time.

The ultra-low I_Q enables direct interface to lower voltage chipset without any external circuit and maintains lower power consumption. The OFF pin allows the GLF76121, GLF76121S, and GLF76121L to achieve complete shutdown with total downstream standby current of 7 nA typical. With the switch placed between a battery and system, this switch can help to significantly extend system battery life in mobile devices during shipping or periods of extended off time.

FEATURES

- Ultra-Low I_{SD}: 7 nA Typ @ 3.6 VBAT
- Ultra-Low I_Q: 7 nA Typ @ 3.6 VBAT
- Low R_{ON}: 34 mΩ Typ @ 3.6 VBAT
- I_{OUT} Max: 2 A
- Supply Voltage Range: 2.5 V to 5.5 V
6 Vabs max
- Reset Delay Time (/SRO Hold Time)
 - GLF76121 : 6 s
 - GLF76121S : 2.95 s
 - GLF76121L : 12 s
- Reset Pulse Period
 - GLF76121 : 750 ms
 - GLF76121S : 360 ms
 - GLF76121L : 750 ms
- Turn-Off Delay Time
 - GLF76121 : 6 s
 - GLF76121S : 2.95 s
 - GLF76121L : 12 s
- Output Rise Time: 1 ms at 3.6 VBAT
- Integrated Output Discharge Switch When Disabled
- HBM: 6 kV, CDM: 2 kV
- Ultra-Small: 0.97 mm x 1.47 mm WLCSP

PRODUCT TABLE

Eval Board Ordering Info	Part Number	Top Mark	R _{ON} (Typ.) @ 3.6 VBAT	/SRO Hold Time	Output Discharge
EV012-GLF76121S	GLF76121S	RG	34mΩ	2.95 s	85 Ω
EV012-GLF76121	GLF76121	BN	34mΩ	6 s	85 Ω
EV012-GLF76121L	GLF76121L	RS	34mΩ	12 s	85 Ω