

DESCRIPTION

The GLF71307 is an ultra-efficiency, 1.5A rated, integrated load switch with integrated slew rate control. The best in class efficiency makes it an ideal choice for use in IoT, mobile, and wearable electronics.

The GLF71307 features an ultra-efficient I_QSmart™ technology that supports the lowest quiescent current (I_Q) and shutdown current (I_{SD}) inx the industry. Low I_Q and I_{SD} solutions help designers to reduce parasitic leakage current, improve system efficiency, and increase battery lifetime.

The GLF71307 integrated slew rate control greatly enhances system reliability by mitigating bus voltage swings during switching events. Where uncontrolled switches can generate high inrush currents that result in voltage droop and/or bus reset events, the GLF slew rate control specifically limits inrush currents during turn-on to minimize voltage droop.

The GLF71307 can be used in multiple voltage rail applications which helps to simplify inventory management and reduces operating cost.

GLF71307 has small footprint utilizing a wafer level chip scale packaging with 4 bumps in a 0.77mm x 0.77mm x 0.46mm die size and a 0.4mm pitch.

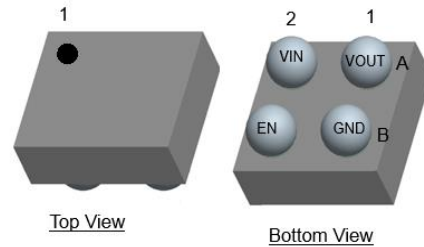
FEATURES

- Ultra-Low I_Q: 1nA Typ @ 5.5V_{IN}
- Ultra-Low I_{SD}: 19nA Typ @ 5.5 V_{IN}
- Low R_{ON} = 34mΩ Typ @ 5.5V_{IN}
- I_{OUT} Max = 1.5A
- Wide Input Range: 1.1V to 5.5V
6V abs max
- Controlled Rise Time: 9us at 3.3V_{IN}
- Internal EN Pull-Down Resistor
- Integrated Output Discharge Switch
- Temperature Range: -40 to 85°C
- HBM: 6kV, CDM: 2kV
- Ultra-Small: 0.77mm x 0.77mm

APPLICATIONS

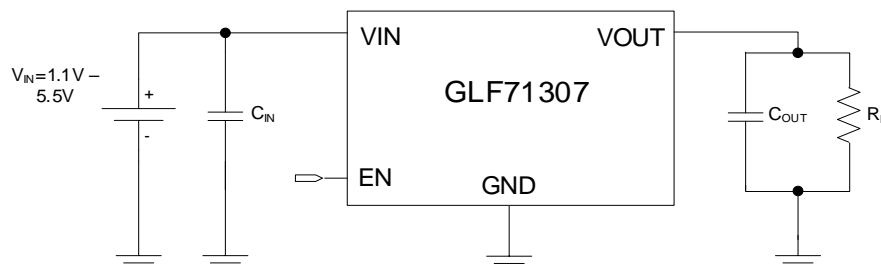
- Wearables
- Data Storage, SSD
- Mobile Devices
- Low Power Subsystems

PACKAGE



0.77mm x 0.77mm x 0.46mm
0.4mm pitch WLCSP

APPLICATION DIAGRAM



FUNCTIONAL BLOCK DIAGRAM

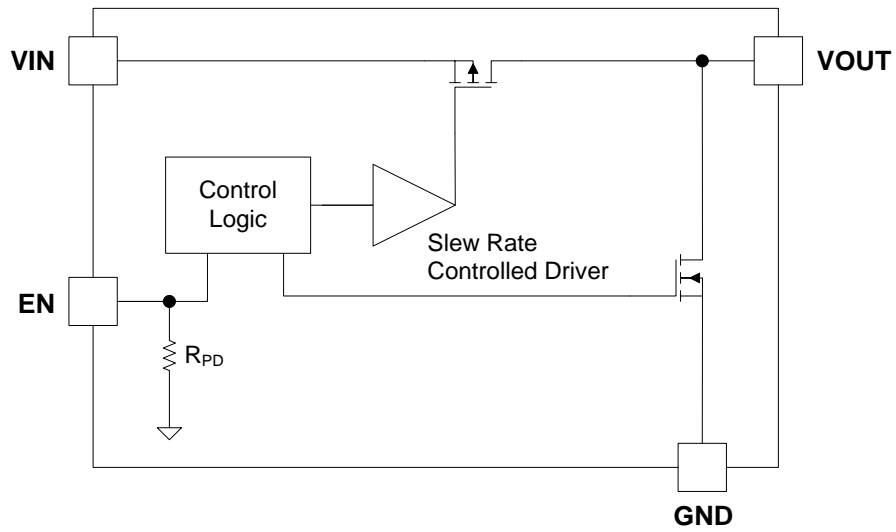
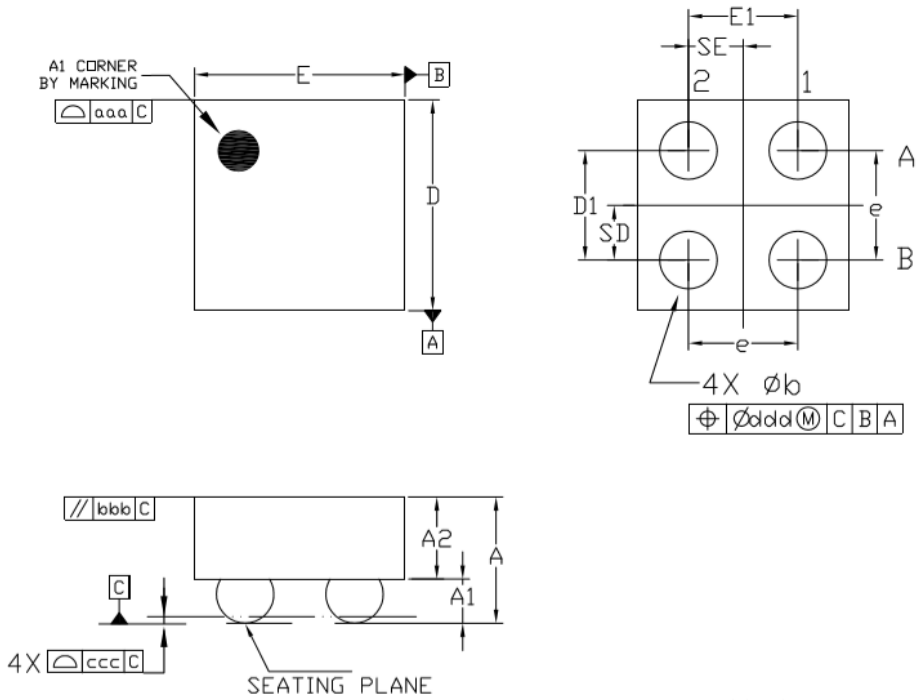


Figure 1. Functional Block Diagram

GLF71307

PACKAGE OUTLINE



Dimensional Ref.			
REF.	Min.	Nom.	Max.
A	0.410	0.460	0.510
A1	0.135	0.160	0.185
A2	0.275	0.300	0.325
D	0.755	0.770	0.785
E	0.755	0.770	0.785
D1	0.350	0.400	0.450
E1	0.350	0.400	0.450
b	0.170	0.210	0.250
e	0.400 BSC		
SD	0.200 BSC		
SE	0.200 BSC		
Tol. of Form&Position			
aaa	0.10		
bbb	0.10		
ccc	0.05		
ddd	0.05		

Notes

1. ALL DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994.

SPECIFICATION DEFINITIONS

Document Type	Meaning	Product Status
Target Specification	This is a target specification intended to support exploration and discussion of critical needs for a proposed or target device. Spec limits including typical, minimum, and maximum values are desired, or target, limits. GLF reserves the right to change limits at any time without warning or notification. A target specification in no way guarantees future production of the device in question.	Design / Development
Preliminary Specification	This is a draft version of a product specification. The specification is still under internal review and subject to change. GLF reserves the right to change the specification at any time without warning or notification. A preliminary specification in no way guarantees future production of the device in question.	Qualification
Product Specification	This document represents the anticipated production performance characteristics of the device.	Production

DISCLAIMERS

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