GLF71300
Nano-Current Consumed, I$_Q$Smart^{TM} LoadSwitch with Slew Rate Control

DESCRIPTION

The GLF71300 is an ultra-efficiency, 1.5A rated, 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 GLF71300 features an ultra-efficient I$_Q$Smart^{TM} technology that supports the lowest quiescent current (I$_Q$) and shutdown current (I$_{SD}$) in the industry. Low I$_Q$ and I$_{SD}$ solutions help designers to reduce parasitic leakage current, improve system efficiency, and increase battery lifetime.

The GLF71300 integrated slew rate control can also enhance 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 current during turn-on to minimize voltage droop.

The GLF71300 Load Switch device supports an industry leading wide input voltage range and helps to improve operating life and system robustness. Furthermore, one device can be used in multiple voltage rail applications which helps to simplify inventory management and reduces operating cost.

The GLF71300 Load Switch device is small utilizing a wafer level chip scale package with 4 bumps in a 0.77 mm x 0.77 mm x 0.46 mm die size and a 0.4mm bump pitch.
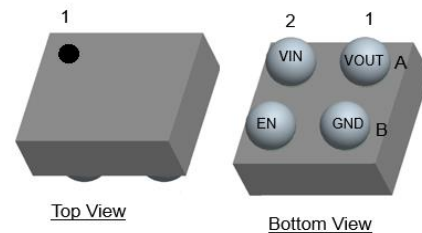
FEATURES

- Ultra-Low I$_Q$: 1 nA Typ @ 5.5 V$_{IN}$
  Ultra-Low I$_{SD}$: 19 nA Typ @ 5.5 V$_{IN}$
- Low R$_{ON}$ = 34 mΩ Typ. @ 5.5 V$_{IN}$
- I$_{OUT}$ Max = 1.5 A
- Wide Input Range: 1.1 V to 5.5 V
  6 Vabs max
- Controlled Rise Time: 430 us at 3.3 V$_{IN}$
- Internal EN Pull-Down Resistor
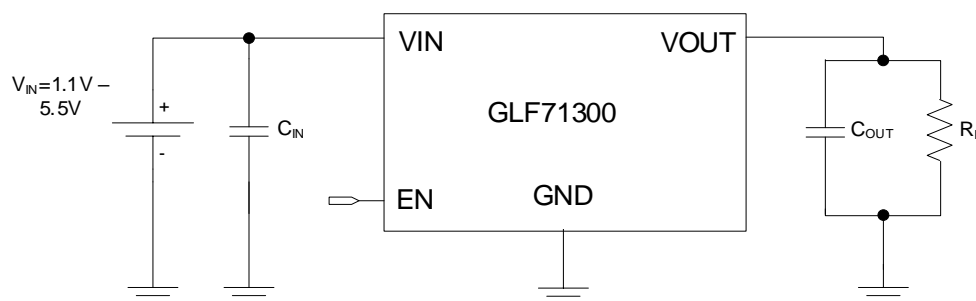- Ultra-Small: 0.77 mm x 0.77 mm

APPLICATIONS

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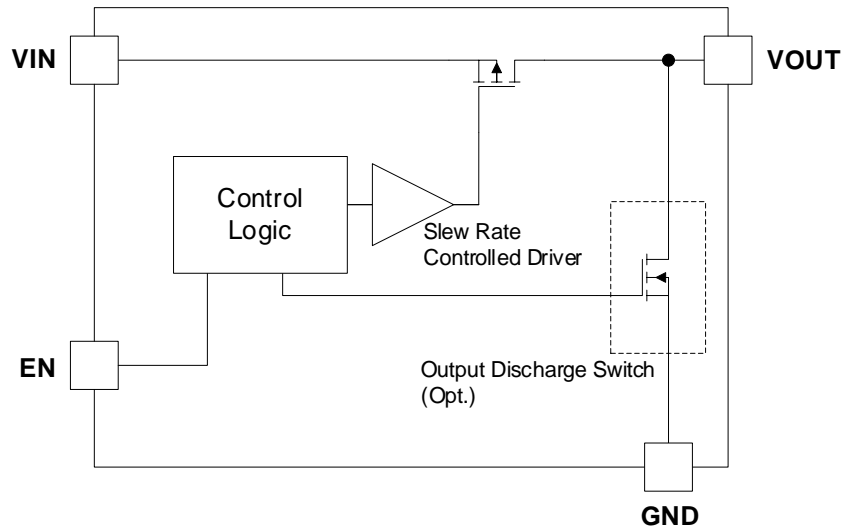- Mobile Devices
- Low Power Subsystems

PACKAGE

Top View   Bottom View

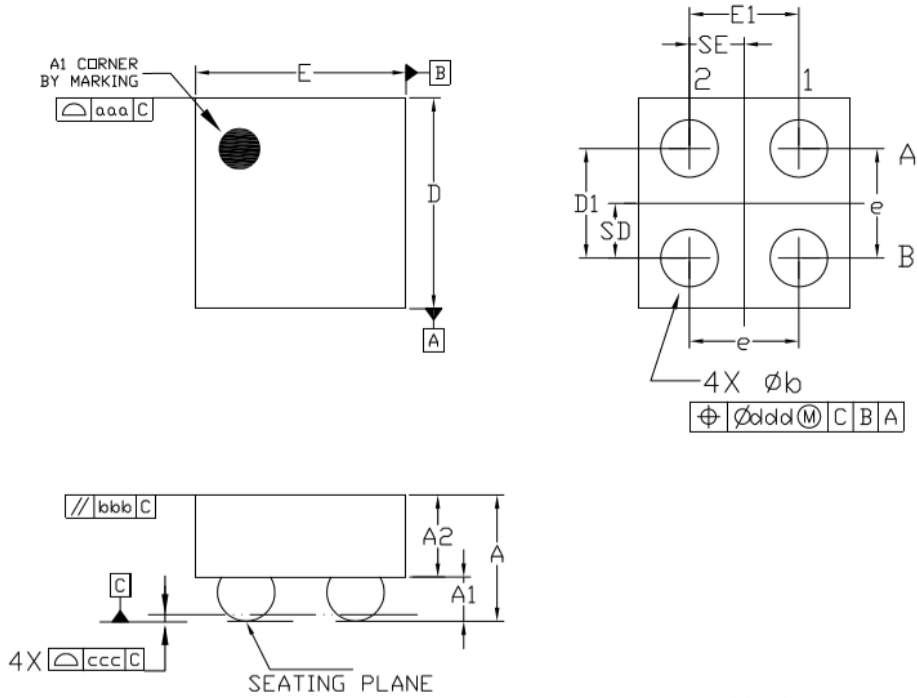**0.77 mm x 0.77 mm x 0.46 mm WLCSP**

APPLICATION DIAGRAM

FUNCTIONAL BLOCK DIAGRAM

Figure 1. Functional Block Diagram

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.