

DESCRIPTION

The GLF71321 is an ultra-efficiency, 4 A rated, integrated load switch with integrated slew rate control.

The GLF71321 features an ultra-efficient I_Q Smart™ technology that supports the lowest R_{ON} , quiescent current (I_Q) and shutdown current (I_{SD}) in the industry. Low R_{ON} reduces conduction losses, while low I_Q and I_{SD} solutions help designers to reduce parasitic leakage current, improve system efficiency, and increase battery lifetime.

The GLF71321 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 current during turn-on to minimize voltage droop.

GLF71321 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.

GLF71321 Load Switch device is small utilizing a chip scale package with 6 bumps in a 0.97 mm x 1.47 mm x 0.55 mm die size and a 0.5 mm pitch.

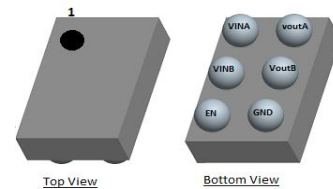
FEATURES

- Low R_{ON} : 15 m Ω Typ @ 5.5 V_{IN}
- Ultra-Low I_Q : 3 nA Typ @ 5.5 V_{IN}
- Ultra-Low I_{SD} : 50 nA Typ @ 5.5 V_{IN}
- I_{OUT} Max: 4 A
- Wide Input Range: 1.1 V to 5.5 V
6 V abs max
- Controlled Rise Time: 400 μ s at 3.3 V_{IN}
- Internal EN Pull-Up Resistor & Active High
- Integrated Output Discharge Switch
- Wide Operating Temperature Range:
-40 °C ~ 85 °C
- HBM: 6 kV, CDM: 2 kV
- Ultra-Small: 0.97 mm x 1.47 mm WLCSP

APPLICATIONS

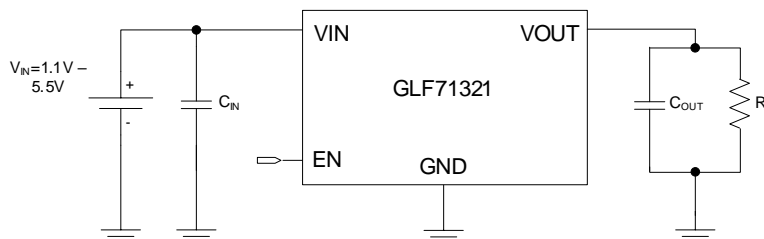
- Mobile Devices
- Data Storage, SSD
- Wearables
- Low Power Subsystems

PACKAGE



0.97 mm x 1.47 mm x 0.55 mm
0.5 mm pitch WLCSP

APPLICATION DIAGRAM



FUNCTIONAL BLOCK DIAGRAM

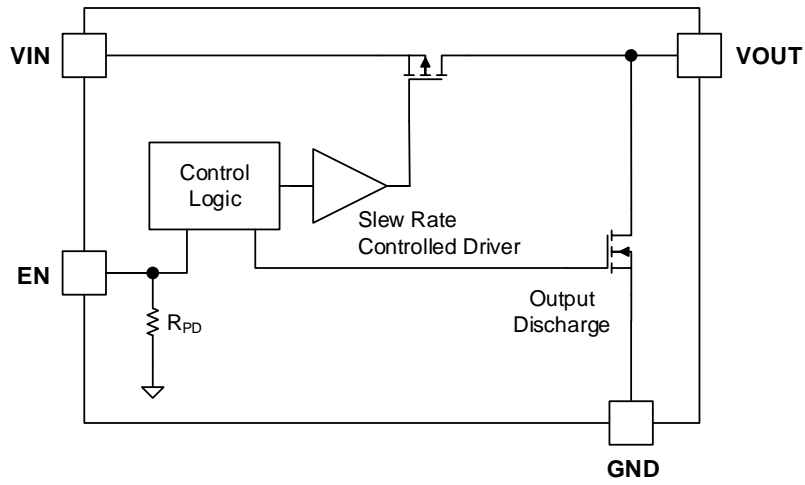
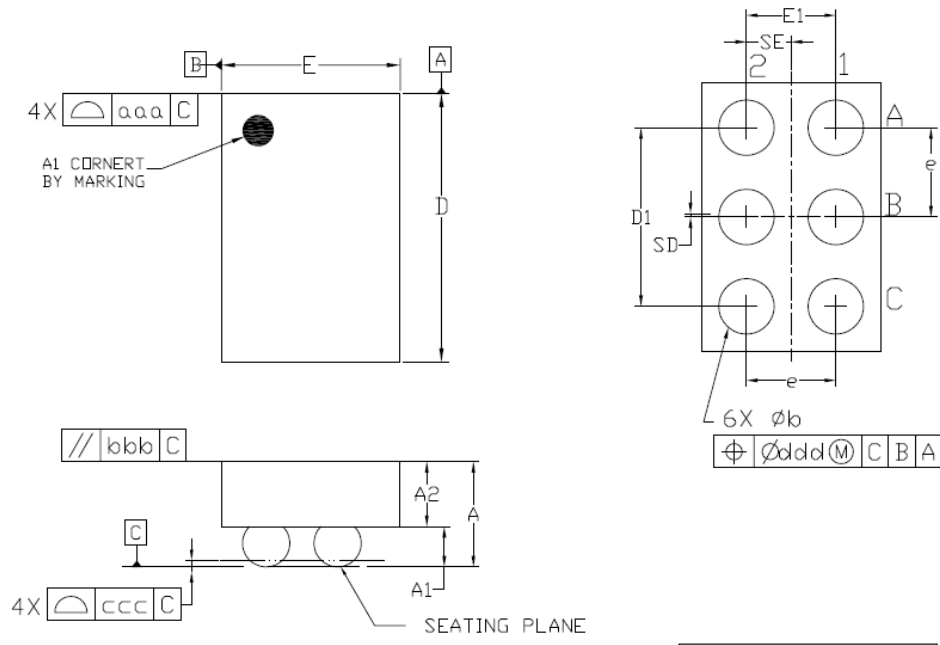


Figure 1. Functional Block Diagram

PACKAGE OUTLINE



Dimensional Ref.			
REF.	Min.	Nom.	Max.
A	0.500	0.550	0.600
A1	0.225	0.250	0.275
A2	0.275	0.300	0.325
D	1.460	1.470	1.485
E	0.960	0.970	0.985
D1	0.950	1.000	1.050
E1	0.450	0.500	0.550
b	0.260	0.310	0.360
e	0.500 BSC		
SD	0.000 BSC		
SE	0.250 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.