GLF71315

Ultra-Efficient, I_QSmart™ Load Switch with Slew Rate Control

Product Brief

DESCRIPTION

The GLF71315 is an ultra-efficiency, 2A rated, Load Switch with integrated slew rate control. The best in class efficiency makes it an ideal chose for use in IoT, mobile, and wearable electronics.

The GLF71315 features ultra-efficient I_QSmart™ 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 GLF71315 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 currents during turn-on to minimize voltage droop.

GLF71315 Load Switch devices support 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 reduce operating cost.

GLF71315 Load Switch device is small utilizing a chip scale package with 4 bumps in a 0.97mm x 0.97mm x0.55mm die size and a 0.5mm bump pitch.

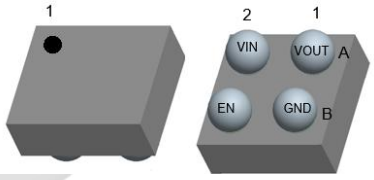
FEATURES

- Ultra-Low I_Q: 7nA Typ @ $5.5V_{IN}$
- Ultra-Low I_{SD}: 28nA Typ @ $5.5V_{IN}$
- Low R_{ON} : 31mΩ Typ @ $5.5V_{IN}$
- I_{OUT} Max: 2A
- Wide Input Range: 1.1V to 5.5V
  6V abs max
- Controlled Rise Time: 335us at $3.3V_{IN}$
- Internal EN Pull-Down Resistor
- Integrated Output Discharge Switch
- Wide Operating Temperature Range:
  -40°C ~ 105°C
- HBM: 6kV, CDM: 2kV
- Ultra-Small: 0.97mm x 0.97mm WLCSP

APPLICATIONS

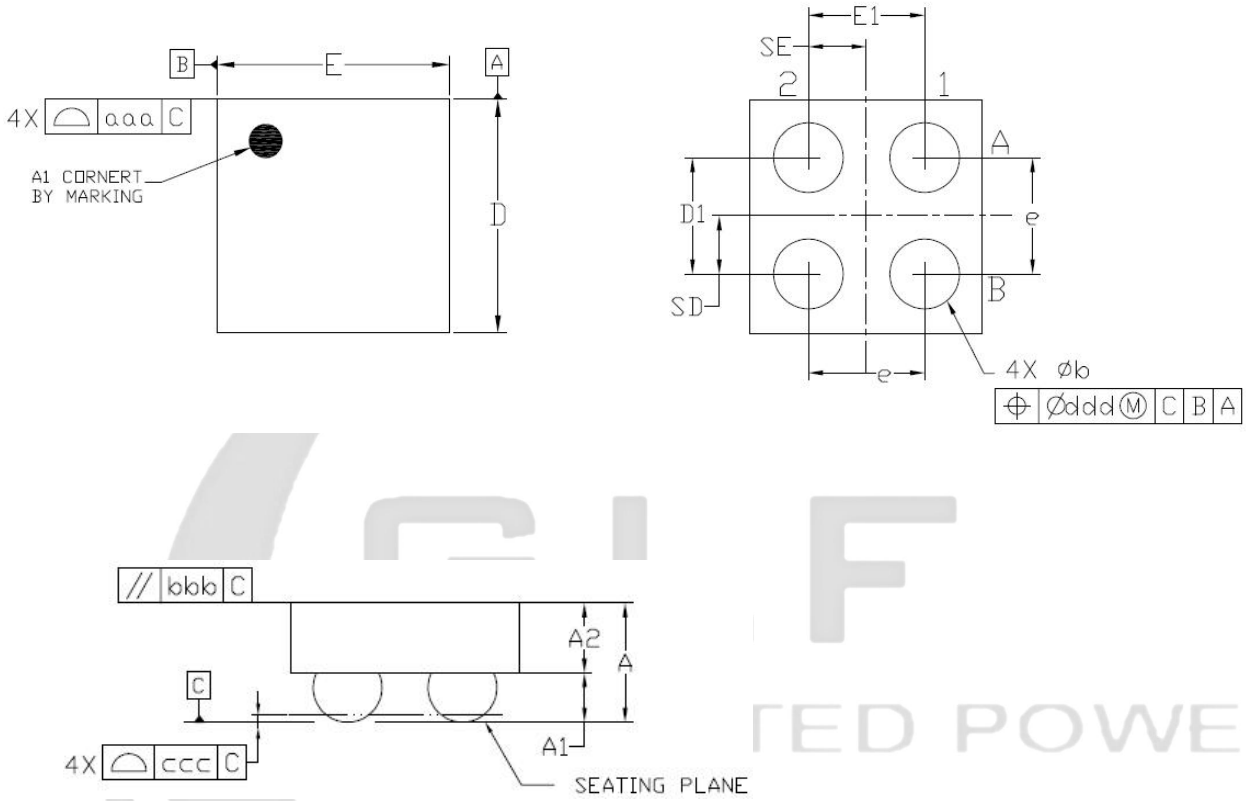
- Wearables
- Data Storage, SSD
- Mobile Devices
- Low Power Subsystems

PACKAGE



0.97mm x 0.97mm x 0.55mm WLCSP

PACKAGE OUTLINE



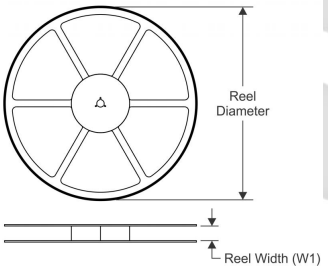
Dimensional Ref.			
REF.	Min.	Nom.	Max.
A	0.500	0.550	0.600
A1	0.225	0.250	0.275
A2	0.275	0.300	0.325
D	0.955	0.970	0.985
E	0.955	0.970	0.985
D1	0.450	0.500	0.550
E1	0.450	0.500	0.550
b	0.260	0.310	0.360
e	0.500 BSC		
SD	0.250 BSC		
SE	0.250 BSC		
Tol. of Form&Position			
aaa	0.10		
bbb	0.10		
ccc	0.05		
ddd	0.05		

Notes

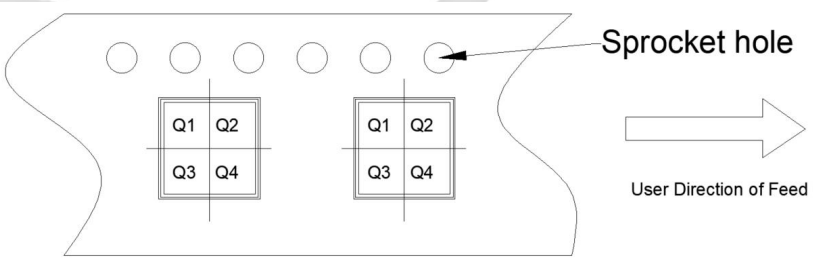
1. All DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994.

TAPE AND REEL INFORMATION

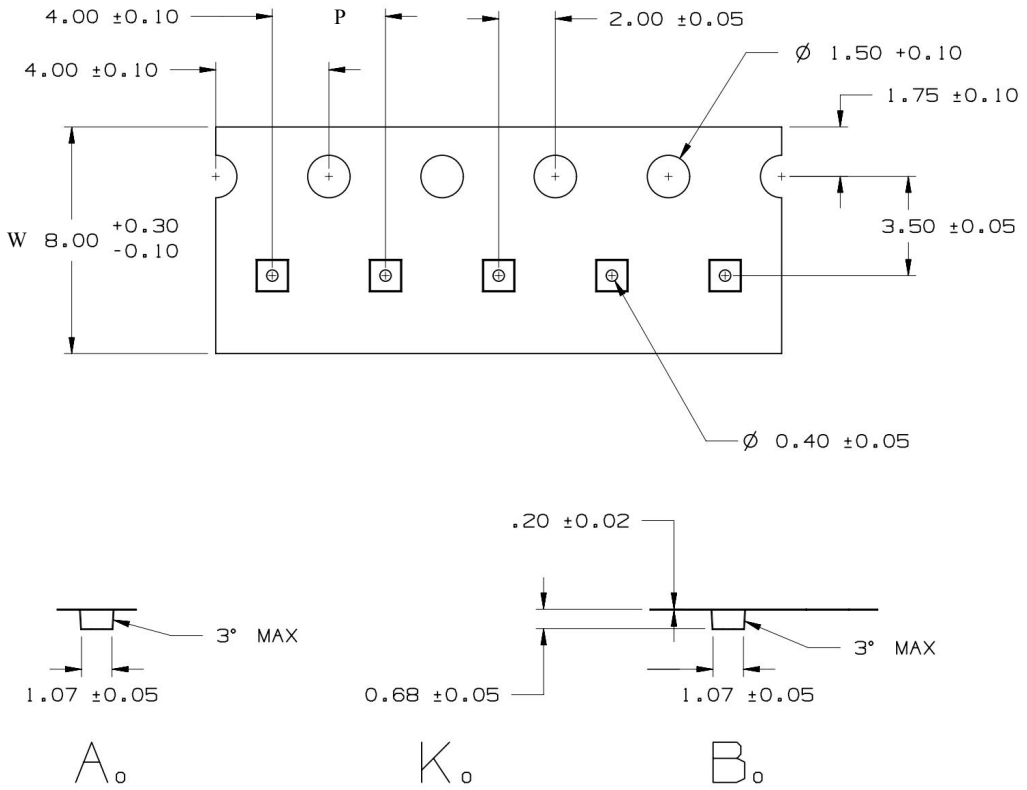
REEL DIMENSIONS



QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE



TAPE DIMENSIONS



Device	Package	Pins	SPQ	Reel Diameter(mm)	Reel Width W1	A0	B0	K0	P	W	Pin1
GLF71315	WLCSP	4	3000	180	9	1.07	1.07	0.68	4	8	Q1

Remark:

A0: Dimension designed to accommodate the component width

B0: Dimension designed to accommodate the component length

C0: Dimension designed to accommodate the component thickness

W: Overall width of the carrier tape

P: Pitch between successive cavity centers