GLF71301H

Nano-Current Consumed I_QSmart™ Load Switch with Slew Rate Control

Product Specification

DESCRIPTION

The GLF71301H is an ultra-efficiency, 2.0 A 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 GLF71301H 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 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 GLF71301H 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.

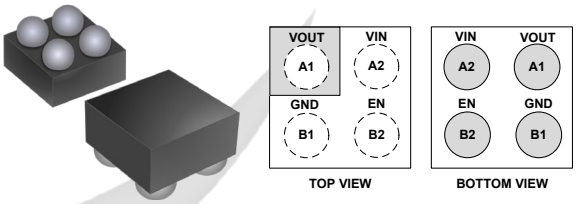
FEATURES

- 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: 2.0 A
- Wide Input Range: 1.1 V to 5.5 V
  6 V_{Abs} Max
- Controlled Rise Time: 430 µs at 3.3V_{IN}
- Internal EN Pull-Down Resistor
- Integrated Output Discharge Switch
- Wide Operating Temperature Range: -40 °C to 105 °C
- Ultra-Small: 0.77 mm x 0.77 mm

APPLICATIONS

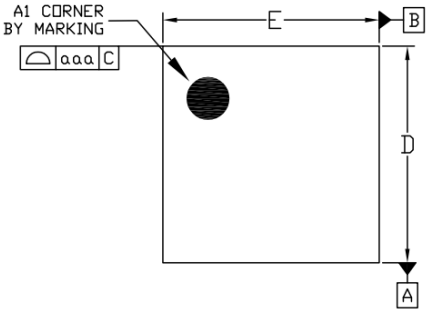
- Wearables
- Data Storage, SSD
- Mobile Devices
- Low Power Subsystems

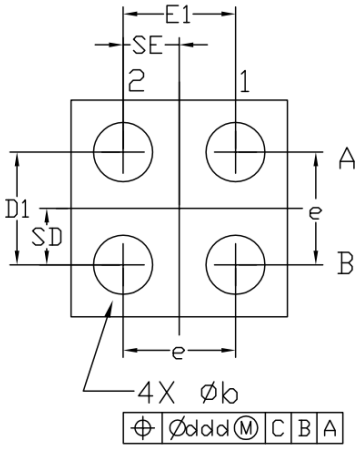
PACKAGE

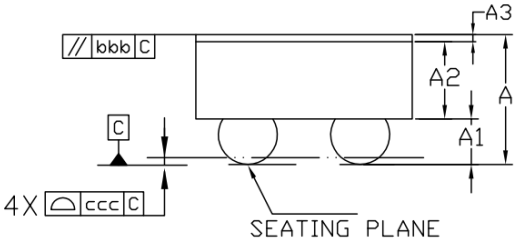


0.77 mm x 0.77 mm x 0.46 mm WLCSP

PACKAGE OUTLINE







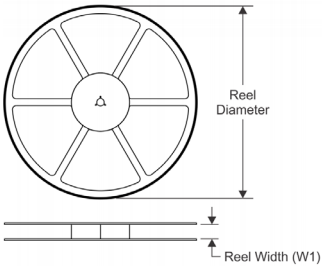
Dimensional Ref.			
REF.	Min.	Nom.	Max.
A	0.410	0.460	0.510
A1	0.135	0.160	0.185
A2	0.250	0.275	0.300
A3	0.020	0.025	0.030
D	0.755	0.770	0.785
E	0.755	0.770	0.785
D1	0.350	0.400	0.450
E1	0.350	0.400	0.450
b	0.170	0.210	0.250
e	0.400 BSC		
SD	0.200 BSC		
SE	0.200 BSC		
Tol. of Form&Position			
aaa	0.10		
bbb	0.10		
ccc	0.05		
ddd	0.05		

Notes

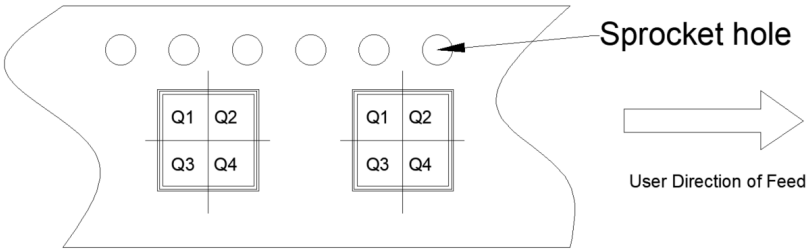
1. ALL DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGRESS)
2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994.
3. A3: BACKSIDE LAMINATION

TAPE AND REEL INFORMATION

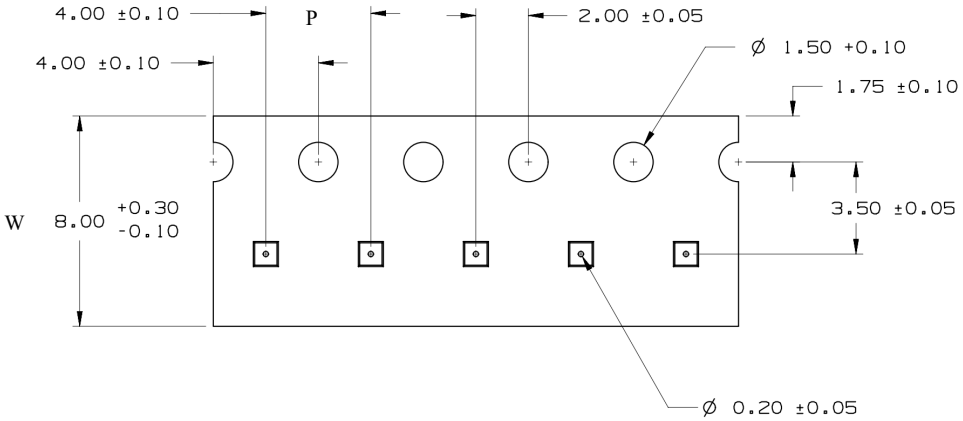
Reel Dimensions

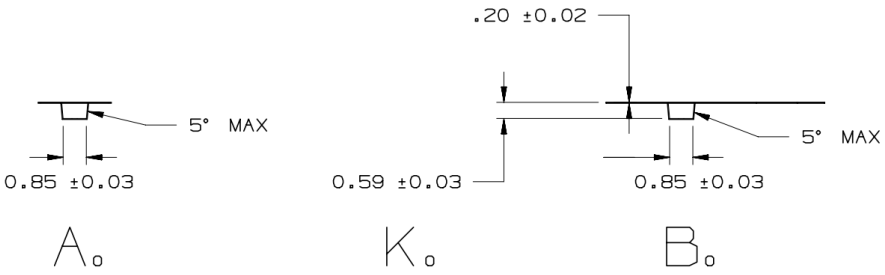


Quadrant Assignments PIN1 Orientation Tape



Tape Dimensions





Device	Package	PINs	SPQ	Reel Diameter (mm)	Reel Width W1	A0	B0	K0	P	W	PIN1
GLF71301H	WLCSP	4	4000	180	9	0.85	0.85	0.59	4	8	Q1

Notes:
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