



Nano-Current Consumed I<sub>Q</sub>Smart<sup>™</sup> Power Load Switch with Slew Rate Control

**Product Specification** 

## DESCRIPTION

The GLF71300H and GLF71301H are an ultraefficiency, 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 GLF71300H and GLF71301H support 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 GLF71300H and GLF71301H slew rate control specifically limits inrush current during turn-on to minimize voltage droop.

The GLF71300H and GLF71301H 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 reduces operating cost.

## **FEATURES**

Ultra-Low I<sub>Q</sub>: 1 nA Typ at 5.5 V<sub>IN</sub>
Ultra-Low I<sub>SD</sub>: 19 nA Typ at 5.5 V<sub>IN</sub>

 $\bullet$  Low  $R_{ON}$  : 34  $m\Omega$  Typ at 5.5  $V_{IN}$ 

• I<sub>OUT</sub> Max : 2.0 A

• Wide Input Range: 1.1 V to 5.5 V

6 V<sub>ABS</sub> Max

 $\bullet$  Controlled Rise Time: 430  $\mu s$  at  $3.3 V_{\text{IN}}$ 

• 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

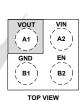
• Data Storage, SSD

Mobile Devices

Low Power Subsystems

## **PACKAGE**







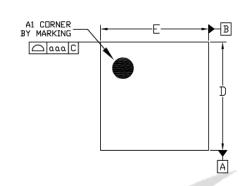
0.77 mm x 0.77 mm x 0.46 mm WLCSP

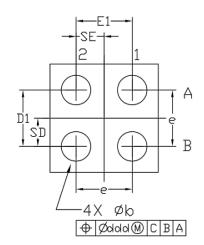
## **DEVICE INFORMATION**

Part Number	Top Mark	Vout Rise Time at 3.3Vin (Typ)	R <sub>ON</sub> (Typ) at 5.5 V	Output Discharge	EN Activity	Package		
GLF71300H	h	420 μα	34 mΩ	NA	Lliab	0.77 mm x 0.77 mm x 0.46 mm WLCSP		
GLF71301H	Р	430 µs		85 Ω	High			

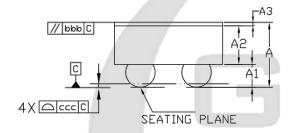
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## PACKAGE OUTLINE





Dimensional Ref.							
REF.	Min.	Max.					
Α	0.410	0.460	0.510				
Α1	0.135	0.160	0.185				
A2	0.250	0.275	0.300				
Α3	0.020	0.025	0.030				
D	0.755	0.770	0.785				
Е	0.755	0.770	0.785				
D1	0.350	0.400	0.450				
E1	0.350	0.400	0.450				
Ь	0.170	0.210	0.250				
е	0.400 BSC						
SD	0.200 BSC						
SE	0.200 BSC						
Tol. of Form&Position							
aaa	0.10						
ььь	0.10						
CCC	0.05						
ddd	0.05						

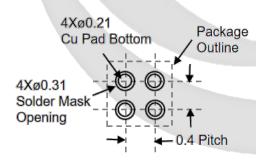


# INTEGRATED POWER

## **Recommended Footprint**

## Notes

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

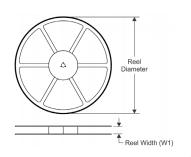


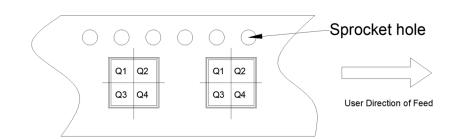
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## TAPE AND REEL INFORMATION

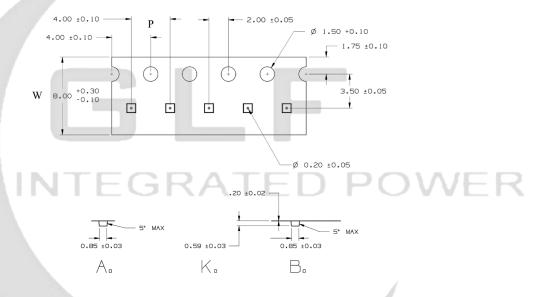
## **REEL DIMENSIONS**

#### **QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE**





## **TAPE DIMENSIONS**



Device	Package	Pins	SPQ	Reel Diameter (mm)	Reel Width W1	Α0	В0	K0	Р	w	Pin1
GLF71300H	WLCSP		4000	400	•	0.05	0.05	0.50		•	0.4
GLF71301H		4	4000	180	9	0.85	0.85	0.59	4	8	Q1

## Remark:

- A0: Dimension designed to accommodate the component width
- B0: Dimension designed to accommodate the component length
- K0: Dimension designed to accommodate the component thickness
- W: Overall width of the carrier tape
- P: Pitch between successive cavity centers