

### **GLF71302**

# Nano-Current Consumed, I<sub>Q</sub>Smart<sup>™</sup> LoadSwitch with Slew Rate Control

**Product Brief** 

#### **DESCRIPTION**

Rev. 1.4 Feb 2022

The GLF71302 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 GLF71302 features an ultra-efficient  $I_QSmart^{TM}$  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 GLF71302 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 GLF71302 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 GLF71302 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 0.4 mm bump pitch.

#### **FEATURES**

Ultra-Low I<sub>Q</sub>: 540 nA Typ @ 5.5 V<sub>IN</sub>
Ultra-Low I<sub>SD</sub>: 19 nA Typ @ 5.5 V<sub>IN</sub>

• Low  $R_{ON} = 34 \text{ m}\Omega \text{ Typ.} @ 5.5 \text{ V}_{IN}$ 

• Iout Max = 2.0 A

Wide Input Range: 1.1 V to 5.5 V

6 Vabs max

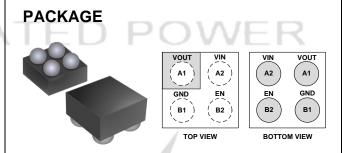
Controlled Rise Time: 430 us at 3.3 V<sub>IN</sub>

• Internal EN Pull-Up Resistor

Ultra-Small: 0.77 mm x 0.77 mm

#### **APPLICATIONS**

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

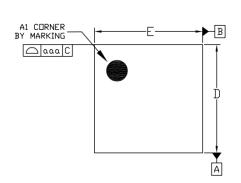


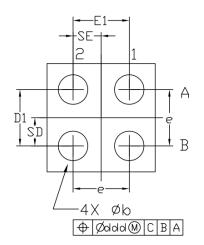
0.77 mm x 0.77 mm x 0.46 mm WLCSP

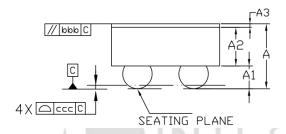


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### **PACKAGE OUTLINE**







Dimensional Ref.								
REF.	Min.	Nom.	Max.					
Α	0.410	0.460	0.510					
Α1	0.135	0.160	0.185					
Α2	0.250	0.275	0.300					
Α3	0.020	0.025	0.030					
D	0.755	0.770	0.785					
Ε	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								
ааа	0.10							
ЬЬЬ	0.10							
CCC	0.05							
ddd	0.05							

## RATED POWER

#### Notes

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

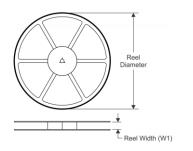


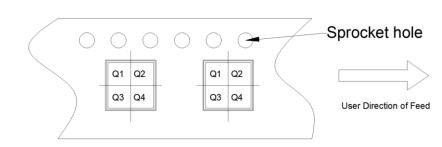
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### TAPE AND REEL INFORMATION

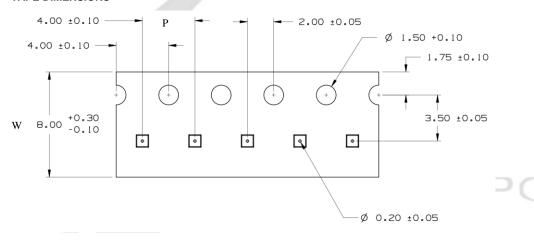
#### **REEL DIMENSIONS**

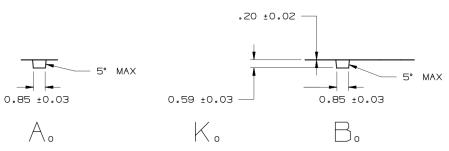
#### **QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE**





#### **TAPE DIMENSIONS**





Device	Package	Pins	SPQ	Reel Diameter(mm)	Reel Width W1	Α0	В0	K0	Р	w	Pin1
GLF72102	WLCSP	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
- C0: Dimension designed to accommodate the component thickness
- W: Overall width of the carrier tape
- P: Pitch between successive cavity centers