

# **GLF72100**

# Nano Current Consumed I<sub>Q</sub>Smart<sup>™</sup> Switch with True Reverse Current Blocking

**Product Brief** 

## **DESCRIPTION**

The GLF72100 is an advanced technology fully integrated  $I_QSmart^{TM}$  load switch device with True Reverse Current Blocking (TRCB) technology and the slew rate control of the output voltage.

The GLF72100 offers industry leading True Reverse Current Blocking (TRCB) performance, featuring an ultra-low threshold voltage. It minimizes reverse current flow in the event that the VOUT pin voltage exceeds the VIN voltage.

The GLF72100 has industry leading efficiency. It features a  $R_{\text{ON}}$  as low as 37 m $\Omega$  typical at 5.5 V, reducing power loss during conduction. The device also features ultra-low shutdown current ( $I_{\text{SD}}$ ) to reduce power loss and battery drain in the off state. When EN is pulled low, and the output is grounded, the GLF72100 can achieve an  $I_{\text{SD}}$  as low as 20 nA typical at 5.5 V.

The GLF72100 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 GLF72100 load switch device is small utilizing a chip scale package with 6 bumps in a  $0.77 \text{ mm} \times 0.77 \text{ mm} \times 0.46 \text{ mm}$  die size and a 0.4 mm pitch.

### **FEATURES**

True Reverse Current Blocking

Ultra-Low I<sub>Q</sub>: 0.45 uA Typ @ 5.5 V<sub>IN</sub>
 Ultra-Low I<sub>SD</sub>: 20 nA Typ @ 5.5 V<sub>IN</sub>

• Low  $R_{ON}$ : 37 m $\Omega$  Typ @ 5.5  $V_{IN}$ 

• I<sub>OUT</sub> Max: 2 A

Wide Input Range: 1.5 V to 5.5 V

6 Vabs max

• Controlled Rise Time: 570 us at 3.3V<sub>IN</sub>

• Internal EN Pull-Down Resistor

• Ultra-Small: 0.77 mm x 0.77 mm

## **APPLICATIONS**

- Mobile Devices
- Wearables
- Low Power Subsystems

# **PACKAGE**



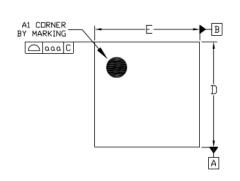


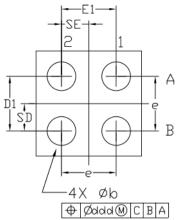


0.77 mm x 0.77 mm x 0.46 mm WLCSP

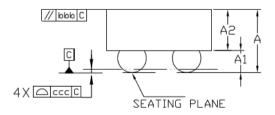


# **PACKAGE OUTLINE**





-							
→SE→				Dimensional Ref.			
2	1 1			REF.	Min.	Nom.	Max.
				Α	0.410	0.460	0.510
			^	A1	0.135	0.160	0.185
		ノート	А	A2	0.275	0.300	0.325
		— - e		D	0.755	0.770	0.785
		\   Ī		Е	0.755	0.770	0.785
	(+	<del>)   '</del>	В	D1	0.350	0.400	0.450
$\mathcal{A}$				E1	0.350	0.400	0.450
7				Ь	0.170	0.210	0.250
4X Øb  (**) Øddd(**) C B A			е	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

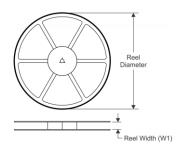
- 1. ALL DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
- 2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994.

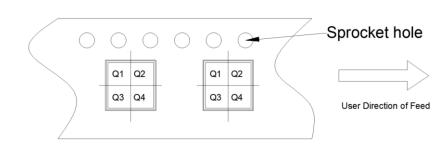


# TAPE AND REEL INFORMATION

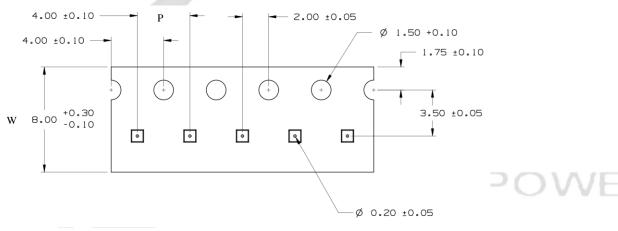
#### **REEL DIMENSIONS**

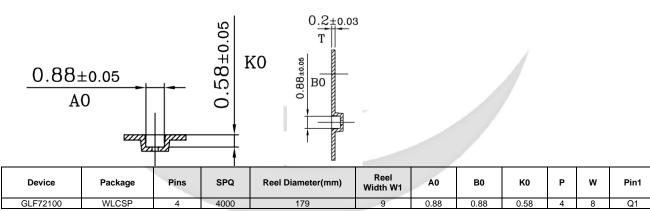
#### **QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE**





#### **TAPE DIMENSIONS**





## 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