

## DESCRIPTION

The GLF1511 load switch is a fully integrated 4 A NMOS load switch with I<sub>Q</sub>Smart™ advanced technology. The device is ideal for the mobile computing and data storage markets as a high performance solution for load switch applications.

The GLF1511 provides a constant low on-resistance of 13 mΩ at the full input voltage range. The fixed rise time helps prevent undesirable inrush current when turned on and the internal EN pin pulldown resistor ensures the device remains in the shutdown mode when disabled. In shutdown mode the GLF1511 consumes ultra-low current at the wide input supply voltage.

The GLF1511 features a reverse current blocking protection. When the GLF1511 is disabled, it prevents reverse current flowing from the output to the input source.

The GLF1511 is available in a wafer level chip scale package (WLCSP) measuring 0.97 mm x 1.47 mm x 0.55 mm with a 0.5 mm pitch. This allows the user to save board space.

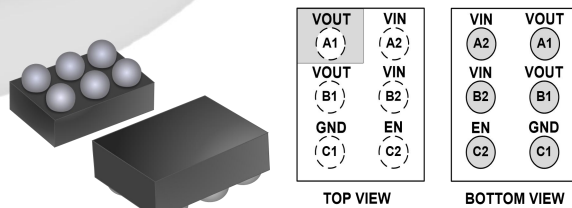
## FEATURES

- Supply Voltage Range: 0.7 V to 5.5 V
- Low R<sub>ON</sub>: 13 mΩ Typ
- I<sub>OUT</sub> Max: 4 A
- Ultra-Low I<sub>Q</sub>:
  - 2 μA Typ at 0.7 V<sub>IN</sub>
  - 14 μA Typ at 3.3 V<sub>IN</sub>
  - 30 μA Typ at 5.5 V<sub>IN</sub>
- Ultra-Low I<sub>SD</sub>:
  - 0.015 μA Typ at 0.7 V<sub>IN</sub>
  - 0.030 μA Typ at 5.5 V<sub>IN</sub>
- Controlled V<sub>OUT</sub> Turn-on Time
- Internal EN Pull-Down Resistor
- Integrated Output Discharge Switch
- Reverse Current Blocking Protection When Disabled
- Operating Temperature Range: - 40 °C to 105 °C
- HBM: 8 kV, CDM: 2 kV
- 0.97 mm x 1.47 mm x 0.55 mm, 6 Bumps Wafer Level Chip Scale Package

## APPLICATIONS

- Data Storage, SSD
- Wearables
- Low Power Subsystems

## PACKAGE

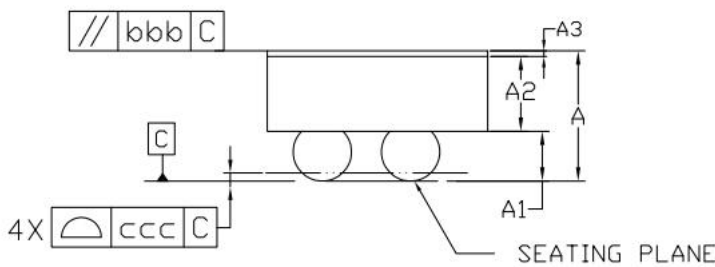
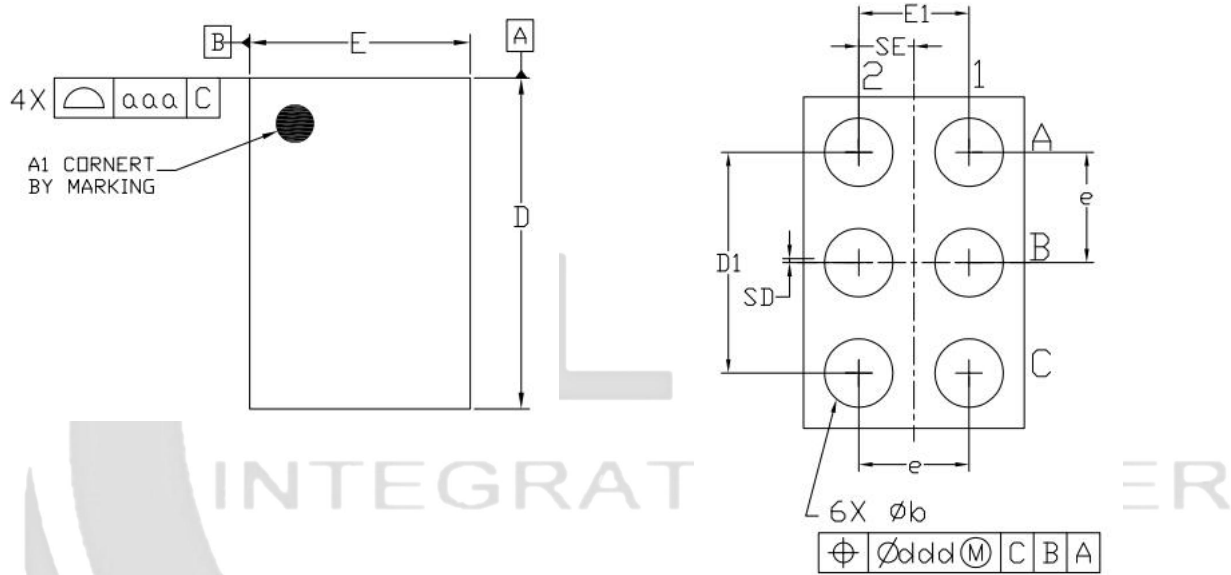


0.97 mm x 1.47 mm x 0.55 mm, 0.5 mm Pitch

**DEVICE ORDERING INFORMATION**

Part Number	Top Mark	R <sub>ON</sub> Typ. at Vin Range	Output Discharge	EN Activity
GLF1511	FL	13 mΩ	250 Ω	High

**PACKAGE OUTLINE**



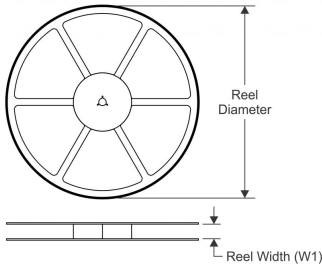
Dimensional Ref.			
REF.	Min.	Nom.	Max.
A	0.500	0.550	0.600
A1	0.225	0.250	0.275
A2	0.250	0.275	0.300
A3	0.020	0.025	0.030
D	1.460	1.470	1.485
E	0.960	0.970	0.985
D1	0.950	1.000	1.050
E1	0.450	0.500	0.550
b	0.260	0.310	0.360
e	0.500 BSC		
SD	0.000 BSC		
SE	0.250 BSC		
Tol. of Form&Position			
aaa	0.10		
bbb	0.10		
ccc	0.05		
ddd	0.05		

Notes

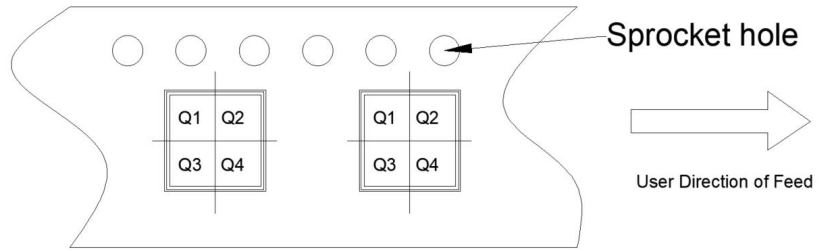
1. ALL DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGRESS)
2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994.
3. A3: BACKSIDE LAMINATION

**TAPE AND REEL INFORMATION**

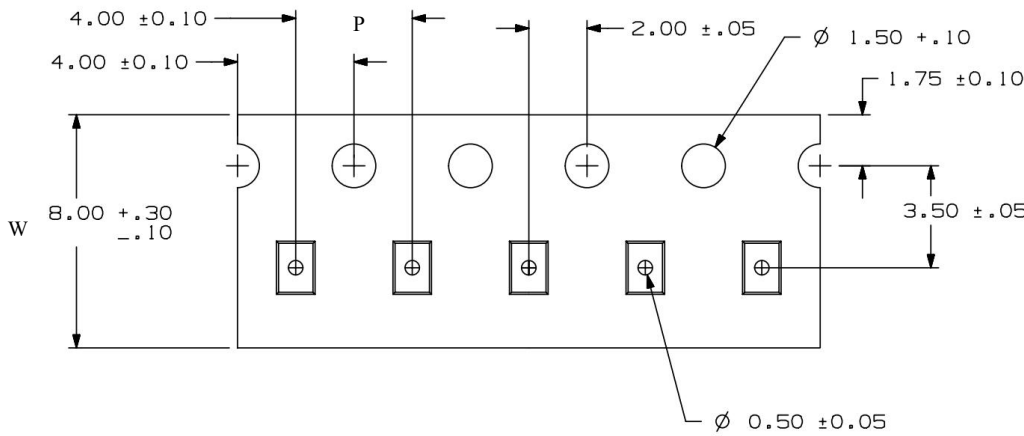
**REEL DIMENSIONS**



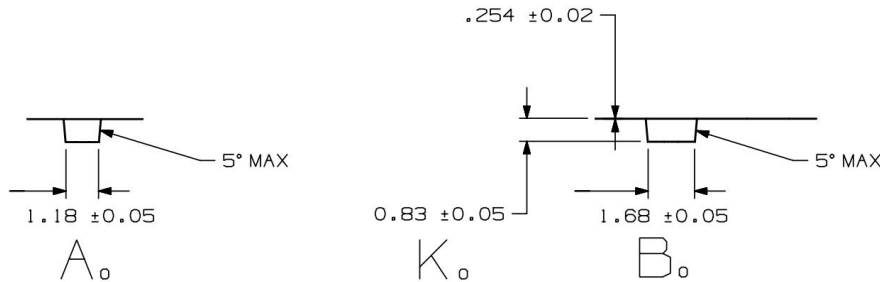
**QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE**



**TAPE DIMENSIONS**



WER



Device	Package	Pins	SPQ	Reel Diameter (mm)	Reel Width W1	A0	B0	K0	P	W	Pin1
GLF1511	WLCSP	6	3000	180	9	1.18	1.68	0.83	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