GLF71325

Low R_{ON} I_QSmart™ Power Switch with Slew Rate Control

Product Brief

DESCRIPTION

The GLF71325 is an ultra-efficiency, 4A rated, integrated load switch with integrated slew rate control. The best in class efficiency makes it an ideal choice for use in lower power subsystems and mobile electronics.

The GLF71325 features an ultra-efficient I_QSmart™ technology that supports the lowest R_{ON}, quiescent current (I_Q) and shutdown current (I_{SD}) in the industry. Low R_{ON} reduces conduction losses, while low I_Q and I_{SD} solutions help designers to reduce parasitic leakage current, improve system efficiency, and increase battery lifetime.

The GLF71325 integrated slew rate control greatly enhances 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 currents during turn-on to minimize voltage droop.

The GLF71325 can be used in multiple voltage rail applications which helps to simplify inventory management and reduces operating cost.

The GLF71325 offers best in class size and resistance performance utilizing a wafer level chip scale packaging with 6 bumps in a 0.97mm x 1.47mm x 0.55mm die size and a 0.5mm pitch.

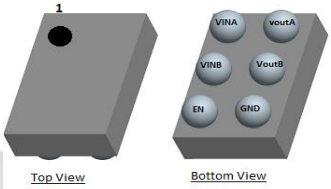
FEATURES

- Wide Input Range: 1.1V to 5.5V
  6V abs max
- Controlled Rise Time: 2.2ms at $3.3V_{IN}$
- Low R_{ON} : 18mΩ Typ @ $3.3V_{IN}$
- Ultra-Low I_Q: 1 nA Typ @ $3.3V_{IN}$
- Ultra-Low I_{SD}: 16nA Typ @ $3.3V_{IN}$
- I_{OUT} Max: 4A @ $5.5V_{IN}$
- Internal EN Pull-Down Resistor
- Integrated Output Discharge Switch
- Wide Operating Temperature Range:
  -40°C ~ 105°C
- HBM: 6kV, CDM: 2kV
- Package: 0.97mm x 1.47mm WLCSP

APPLICATIONS

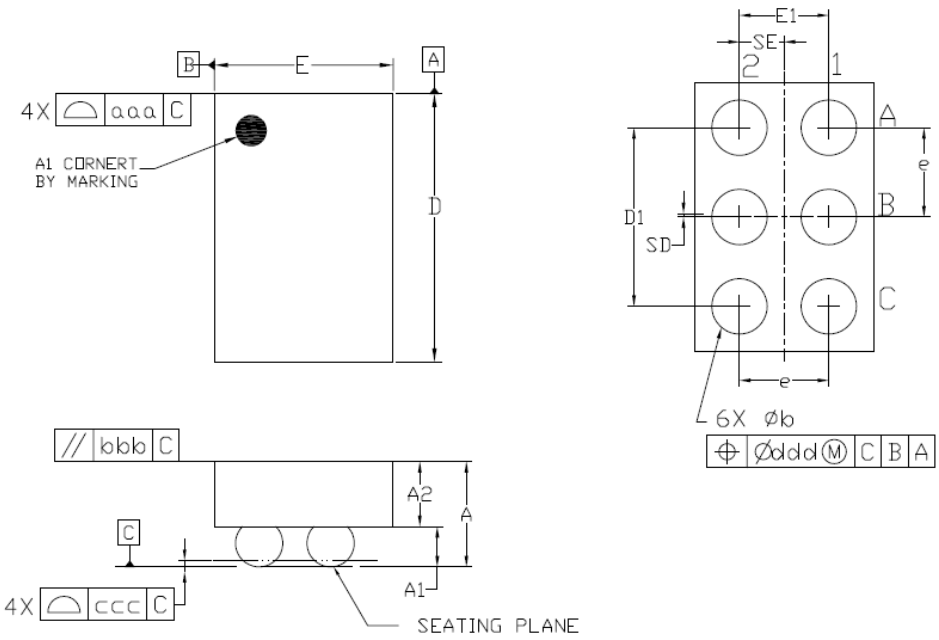
- Low Power Subsystems
- Data Storage, SSD
- Mobile Devices

PACKAGE



0.97mm x 1.47mm x 0.55mm
0.5mm pitch WLCSP

PACKAGE OUTLINE



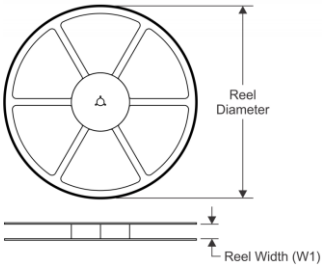
Dimensional Ref.			
REF.	Min.	Nom.	Max.
A	0.500	0.550	0.600
A1	0.225	0.250	0.275
A2	0.275	0.300	0.325
D	1.460	1.470	1.485
E	0.960	0.970	0.985
D1	0.950	1.000	1.050
E1	0.450	0.500	0.550
b	0.260	0.310	0.360
e	0.500 BSC		
SD	0.000 BSC		
SE	0.250 BSC		
Tol. of Form&Position			
aaa	0.10		
bbb	0.10		
ccc	0.05		
ddd	0.05		

Notes

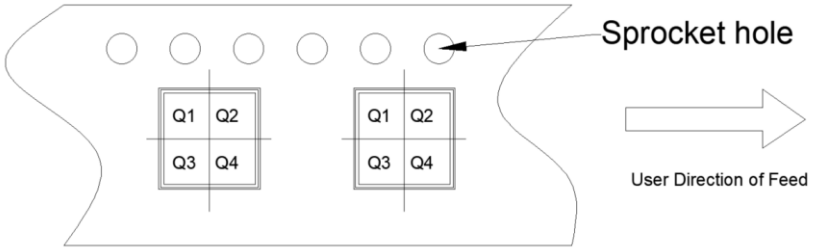
1. All DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994.

TAPE AND REEL INFORMATION

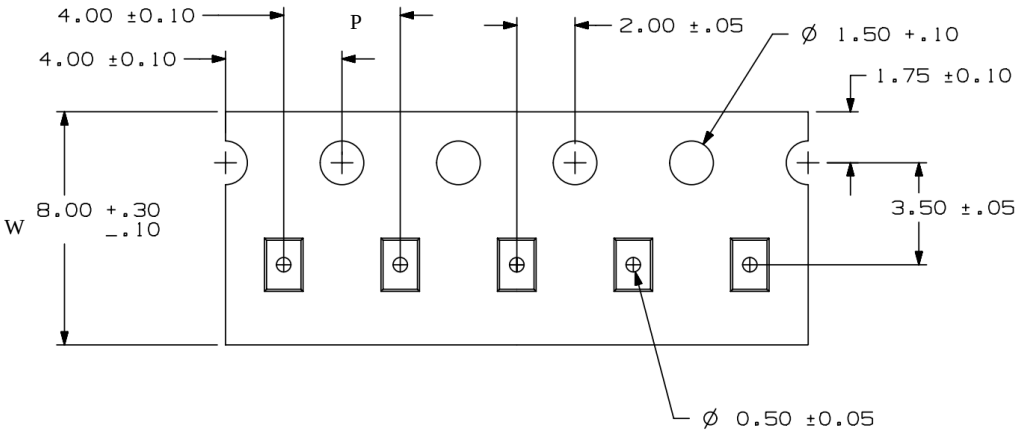
REEL DIMENSIONS

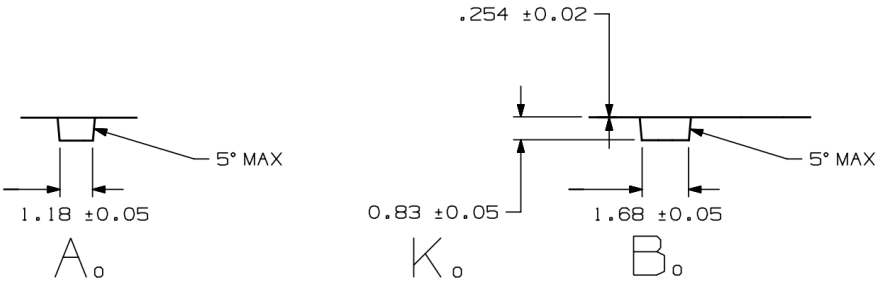


QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE



TAPE DIMENSIONS





Device	Package	Pins	SPQ	Reel Diameter(mm)	Reel Width W1	A0	B0	K0	P	W	Pin1
GLF72125	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