GLF1220H, GLF1221H

Nano-Current Consumed, I_QSmart™ Load Switch with Slew Rate Control and True Reverse Current Blocking

Product Specification

DESCRIPTION

The GLF1220H and GLF1221H are an ultra-efficiency, 1 A rated, integrated load switch with the slew rate control as well as a true reverse current blocking function. The best-in-class efficiency makes it an ideal choice for use in IoT, mobile, and wearable electronics.

The GLF1220H and GLF1221H feature an ultra-efficient I_QSmart™ 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 GLF1220H and GLF1221H offer and industry leading true reverse current blocking (TRCB) function in on and off states. The integrated slew rate control can 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 GLF1220H and GLF1221H slew rate control specifically limits inrush current during turn-on to minimize voltage droop.

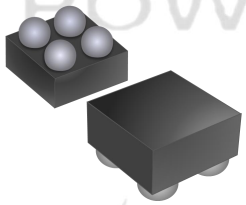
FEATURES

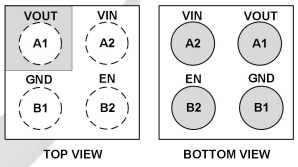
- Wide Input Range, V_{IN} = 1.5 V to 5.5 V
  6 V_{ABS} Max
- I_{OUT} Max = 1 A
- Low R_{ON} = 52 mΩ Typ. at 5.5 V_{IN}
- Ultra-Low I_Q: 500 nA Typ at 5.5 V_{IN}
- Ultra-Low I_{SD}: 10 nA Typ at 5.5 V_{IN}
- True Reverse Current Blocking Protection
- Integrated Output Discharge Switch, GLF1221H
- Internal Pull-Down Resistor on EN Pin

APPLICATIONS

- Wearables
- Mobile Devices
- Low Power Subsystems

PACKAGE



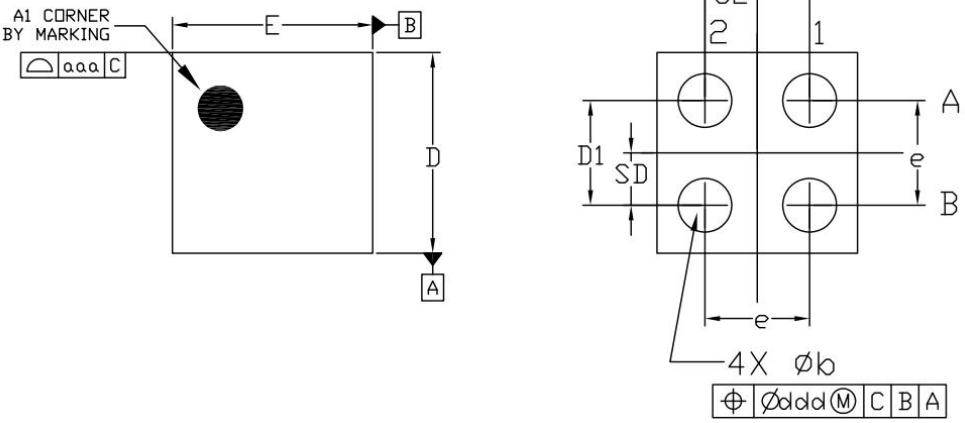


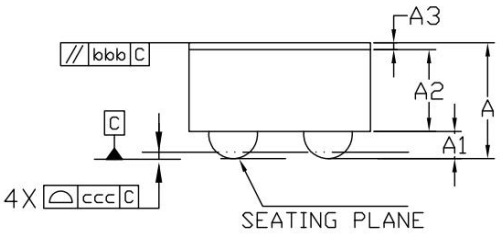
0.67 mm x 0.67 mm x 0.425 mm
0.35 mm Pitch WLCSP

ALTERNATE DEVICE OPTIONS

Part Number	Top Mark	R_{ON} (Typ) at V_{IN} (MAX)	True Reverse Current Blocking	V_{OUT} Rise Time at 3.3 V_{IN}	Output Discharge	EN Activity
GLF1220H	Z	52 mΩ	Yes	390 µs	NA	High
GLF1221H	R				85 Ω	

PACKAGE OUTLINE





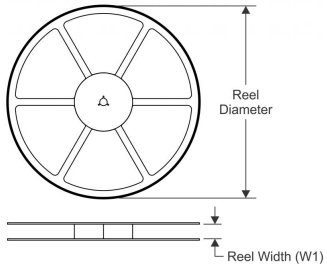
Dimensional Ref.			
REF.	Min.	Nom.	Max.
A	0.380	0.425	0.470
A1	0.085	0.100	0.115
A2	0.275	0.300	0.325
A3	0.020	0.025	0.030
D	0.655	0.670	0.685
E	0.655	0.670	0.685
D1	0.300	0.350	0.400
E1	0.300	0.350	0.400
b	0.145	0.180	0.215
e	0.350 BSC		
SD	0.175 BSC		
SE	0.175 BSC		
Tol. of Form&Position			
aaa	0.10		
bbb	0.10		
ccc	0.05		
ddd	0.05		

Notes

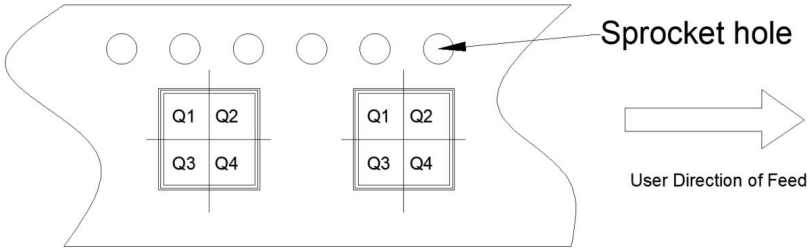
1. ALL DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGRESS)
2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994.
3. A3: BACKSIDE LAMINATION

TAPE AND REEL INFORMATION

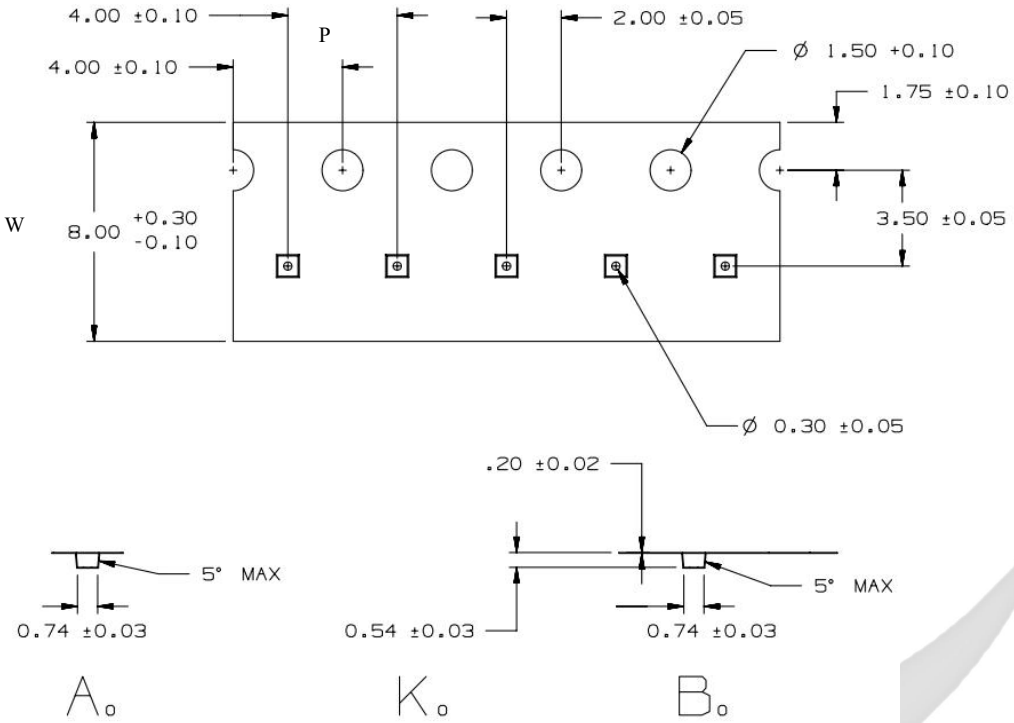
REEL DIMENSIONS



QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE



TAPE DIMENSIONS



Device	Package	Pins	SPQ	Reel Diameter (mm)	Reel Width W1	A0	B0	K0	P	W	Pin1
GLF1220H	WLCSP	4	4000	180	9	0.74	0.74	0.54	4	8	Q1
GLF1221H	WLCSP	4	4000	180	9	0.74	0.74	0.54	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