

DESCRIPTION

The GLF76431 is a 6 A load switch with a configurable reset timer for portable devices. The /SRO pin offers a true reset function enabling the load switch to completely disconnect the load from the input battery after a reasonable long delay time. After the reset period, the main switch of the GLF76431 reconnects the output load to the input battery for normal operation. The programmable delay time to the power reset mode by an external resistor on the REXT pin provides designers with system design flexibility.

The OFF input pin allows the GLF76431 to achieve complete shutdown with total downstream standby current of 360 nA typical. With the switch placed between a battery and system, this switch can help to significantly extend system battery life in mobile devices during shipping or periods of extended off time.

The GLF76431 helps to reduce power consumption with the best in class R_{ON} and a breakthrough on state I_Q of only 420 nA typical when the switch is on.

The GLF76431 integrated 1 ms slew rate control can also enhance system reliability by mitigating bus voltage swings during switching events. Where uncontrolled switching can generate high inrush currents that result in voltage droop and/or bus reset events, the GLF76431 slew rate control specifically limits inrush currents during turn-on to minimize voltage droop. The output discharge function makes output voltage off quickly during the reset period.

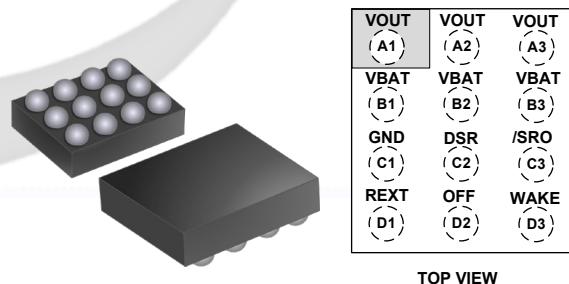
FEATURES

- Ultra-Low I_{SD} : 360 nA Typ @ 3.6 V_{BAT}
- Ultra-Low I_Q : 420 nA Typ @ 3.6 V_{BAT}
- Low R_{ON} : 19 m Ω Typ @ 3.6 V_{BAT}
- I_{OUT} Max: 6 A
- Wide Input Range: 1.8 V to 5.5 V
6 V_{abs} max
- Power Reset Mode by /SRO Pin Disconnect the downstream system from Battery Source
- Programmable delay and reset duration by one external resistor, R_{EXT}
 - Reset delay time by /SRO pin
 - Turn-off delay time by OFF pin
 - Power reset duration time
- Integrated Output Discharge During Reset Period
- Controlled Output Rise Time: 1 ms at 3.6 V_{BAT}
- Operating Temperature Range: - 40 °C to 85 °C
- HBM: 8 kV, CDM: 2 kV

APPLICATIONS

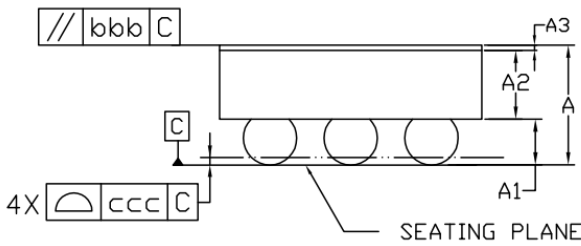
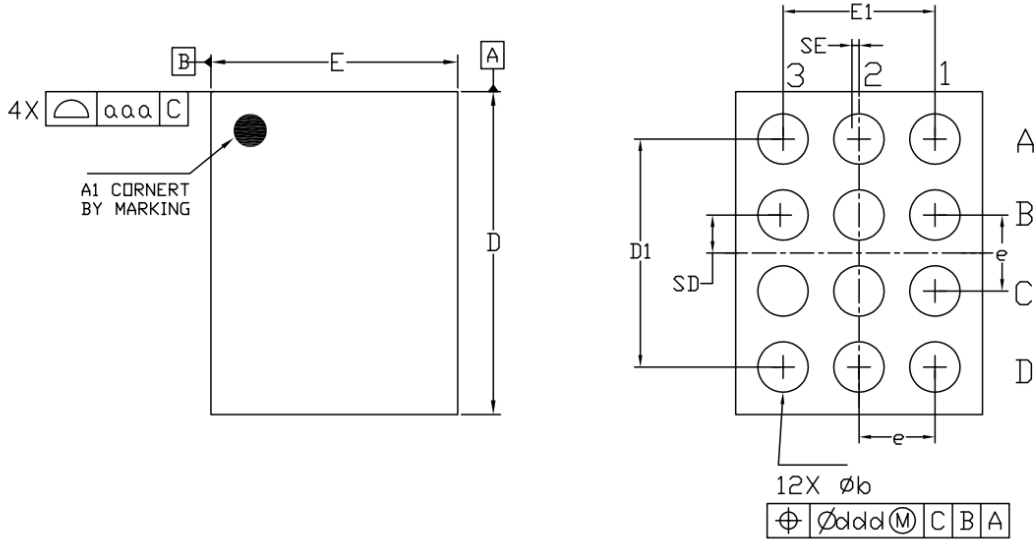
- Smart Wearables
- IoT Devices
- Medical Devices

PACKAGE



1.27 mm x 1.67 mm x 0.55 mm, 0.4 mm Pitch, WLCSP

PACKAGE OUTLINE



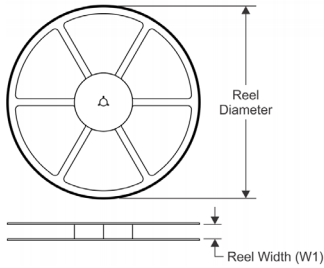
Dimensional Ref.			
REF.	Min.	Nom.	Max.
A	0.500	0.550	0.600
A1	0.175	0.200	0.225
A2	0.300	0.325	0.350
A3	0.020	0.025	0.030
D	1.655	1.670	1.685
E	1.255	1.270	1.285
D1	1.150	1.200	1.250
E1	0.750	0.800	0.850
b	0.215	0.265	0.315
e	0.400 BSC		
SD	0.200 BSC		
SE	0.000 BSC		
Tol. of Form&Position			
aaa	0.10		
bbb	0.10		
ccc	0.05		
ddd	0.05		

Notes

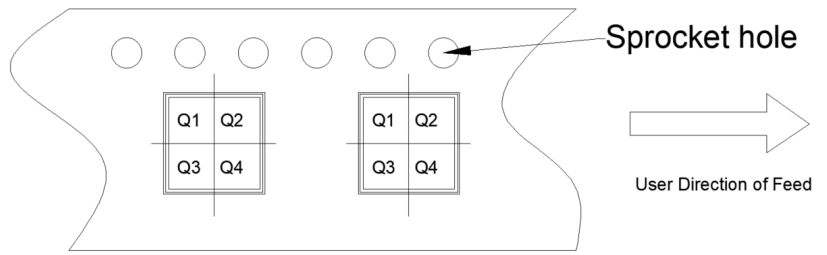
1. ALL DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES)
2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994.
3. A3: BACKSIDE LAMINATION

TAPE AND REEL INFORMATION

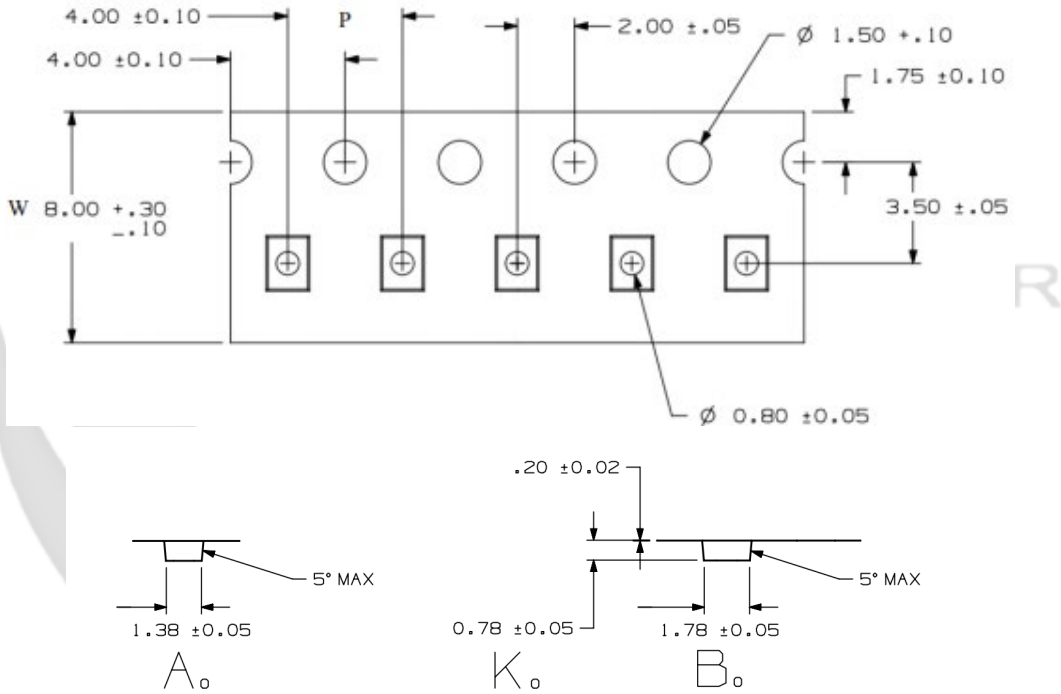
REEL DIMENSIONS



QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE



TAPE DIMENSIONS



Device	Package	Pins	SPQ	Reel Diameter(mm)	Reel Width W1	A0	B0	K0	P	W	Pin1
GLF76431	WLCSP	12	3000	180	9	1.38	1.78	0.78	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