



GLF71430 / GLF71431 7 A, VariRise™ Programmable Slew Rate Controlled Switch

Product Specification

DESCRIPTION

The GLF71430 / GLF71431 is an ultra-efficient, 7 A rated, integrated load switch with the VariRise™ technology which provides the programmable slew rate of variable output voltage rising times.

The GLF71430 / GLF71431 features the ultra-efficient I_QSmart™ technology that supports some of the lowest R_{ON}, quiescent currents (I_Q) and shutdown currents (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 currents, improve system efficiency, and increase battery lifetimes.

The PGM input pin allows the user to add an external resistor to set the slew rate of the switch output voltage to a specific value for a given output capacitance. It limits inrush currents during turn-on, helping to minimize voltage droop.

The GLF71430 / GLF71431 offers best in class size and on-resistance (R_{ON}) performance. It uses chip scale packaging which utilizes 12 bumps, in a 1.27 mm x 1.67 mm die size with 0.4 mm pitch.

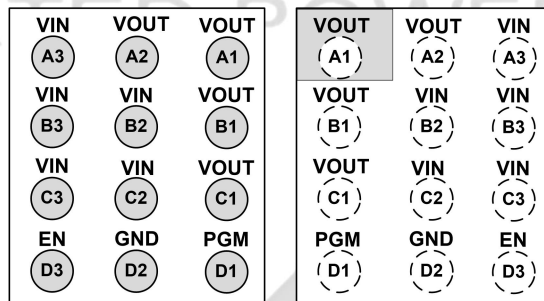
APPLICATIONS

- Low Power Subsystems
- Communication / Network System
- Smart Mobile Devices
- Storage Devices

FEATURES

- Supply Voltage Range: 1.5 V to 5.5 V
- Low R_{ON}: 10 mΩ Typ. at 5.5 V_{IN}
- VariRise™ Programmable V_{OUT} Rising Time
- 7 A Continuous Output Current
- Ultra-Low Quiescent Current
 - I_Q: 10 nA Typ. at 5.5 V_{IN}
- Ultra-Low Stand-by Current
 - I_{SD}: GLF71430, 10 nA Typ. at 5.5 V_{IN}
 - I_{SD}: GLF71431, 55 nA Typ. at 5.5 V_{IN}
- Output Discharge Switch: GLF71431
- Wide Operating Temperature Range: -40 °C to 105 °C
- 1.27 mm x 1.67 mm x 0.55 mm Wafer Level Chip Scale Packaging (WLCSP)

PACKAGE



BOTTOM VIEW

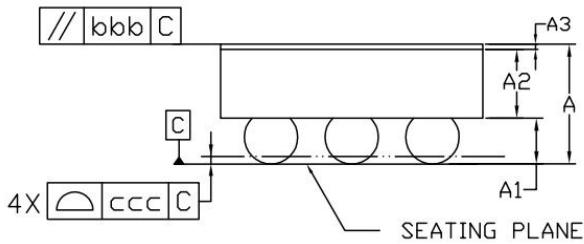
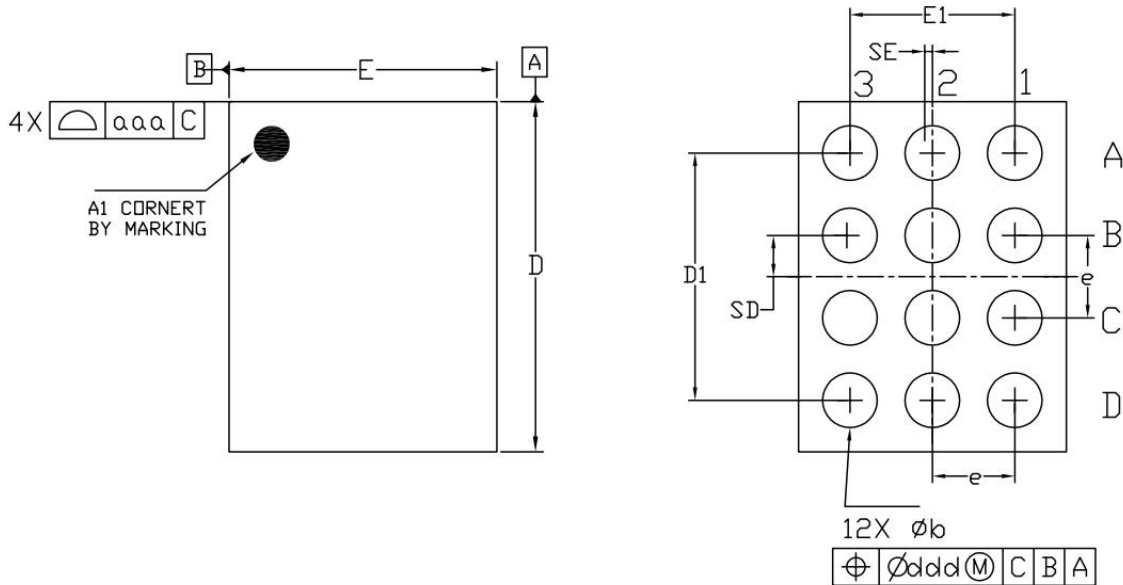
TOP VIEW

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

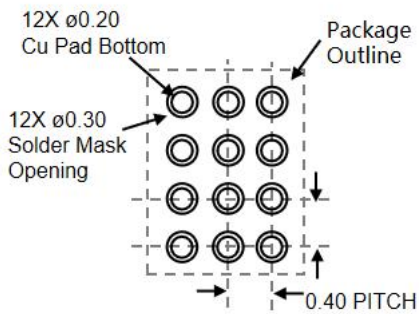
ALTERNATE DEVICE OPTIONS

Part Number	Top Mark	R _{ON} (Typ) at 5.5 V	Output Discharge	EN Activity	Package
GLF71430	DA	10 mΩ	NA	High	WLCSP
GLF71431	AI		85 Ω	High	WLCSP

PACKAGE OUTLINE



Recommended Footprint



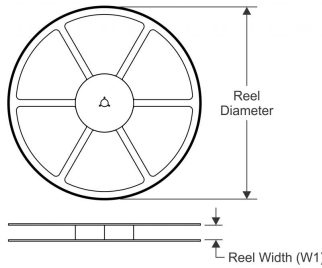
Dimensional Ref.			
REF.	Min.	Nom.	Max.
A	0.500	0.550	0.600
A1	0.175	0.200	0.225
A2	0.300	0.325	0.350
A3	0.020	0.025	0.030
D	1.655	1.670	1.685
E	1.255	1.270	1.285
D1	1.150	1.200	1.250
E1	0.750	0.800	0.850
b	0.215	0.265	0.315
e	0.400 BSC		
SD	0.200 BSC		
SE	0.000 BSC		
Tol. of Form&Position			
aaa	0.10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

Notes

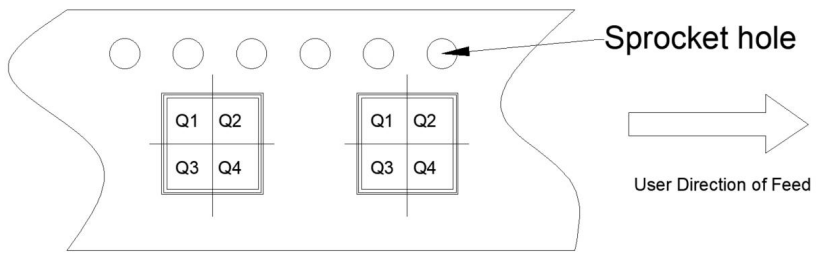
1. ALL DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES)
2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994.
3. A3: BACKSIDE LAMINATION

TAPE AND REEL INFORMATION

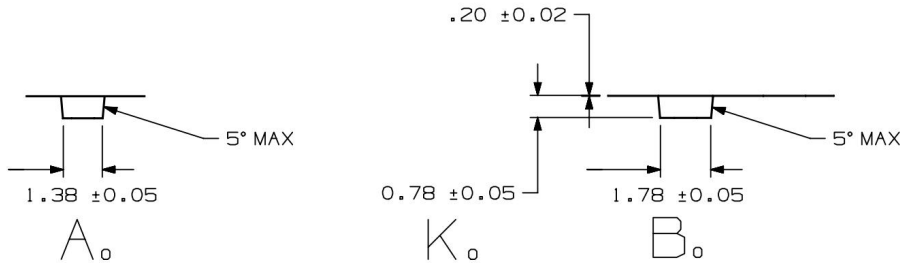
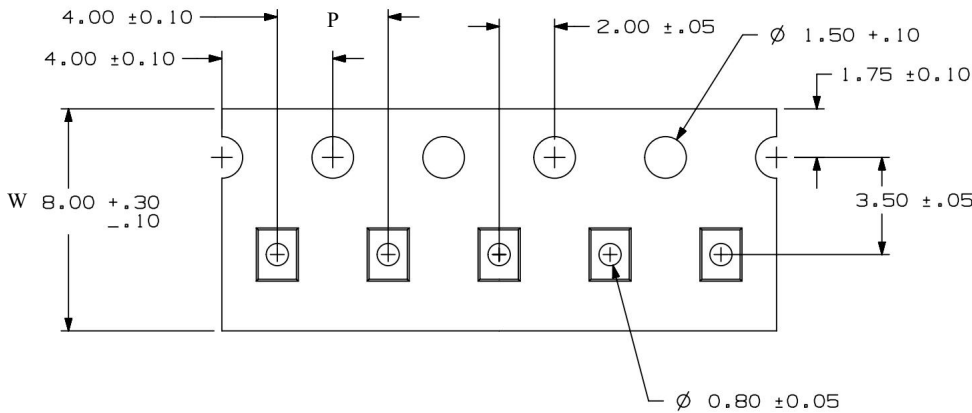
REEL DIMENSIONS



QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE



TAPE DIMENSIONS



Device	Package	Pins	SPQ	Reel Diameter (mm)	Reel Width W1	A0	B0	K0	P	W	Pin1
GLF71430	WLCSP	12	3000	180	9	1.38	1.78	0.78	4	8	Q1
GLF71431	WLCSP	12	3000	180	9	1.38	1.78	0.78	4	8	Q1

Notes:

- 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