

## DESCRIPTION

The GLF1421 is an ultra-efficient dual channel load switch with slew rate control as well as a true reverse current blocking function. The devices feature the ultra-efficient I<sub>Q</sub>Smart™ technology that supports some of the low R<sub>ON</sub>, quiescent currents (I<sub>Q</sub>), and shutdown currents (I<sub>SD</sub>) in an input voltage range from 1.5 V to 5.5 V.

The GLF1421 features an industry leading true reverse current blocking (TRCB) function at both on and off states. The integrated slew rate control can also 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 GLF1421 slew rate control specifically limits inrush current during turn-on to minimize voltage droop.

Each channel runs independently controlled by separate EN control pin. Both devices feature an integrated output discharge switch when they are turned off to discharge output capacitors quickly.

## APPLICATIONS

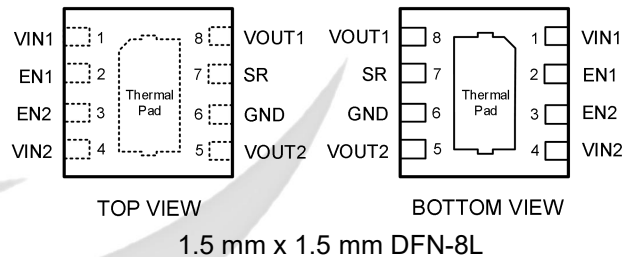
- Smart Mobile Devices
- IoT Devices
- Low Power Subsystems

## FEATURES

### Per Channel

- Supply Voltage Range: 1.5 V to 5.5 V
- Slew Rate Control Pin of Output Rise Time
- True Reverse Current Blocking Protection
- Low R<sub>ON</sub>:
  - 175 mΩ Typ @ 5.5 V<sub>IN</sub>
  - 220 mΩ Typ @ 3.3 V<sub>IN</sub>
  - 265 mΩ Typ @ 2.5 V<sub>IN</sub>
- I<sub>OUT</sub> Max: 1 A Continuous Output Current
- Ultra-Low Quiescent Current, I<sub>Q</sub>
  - 440 nA Typ. at 5.5 V<sub>IN</sub>
  - 210 nA Typ. at 3.3 V<sub>IN</sub>
  - 130 nA Typ. at 2.5 V<sub>IN</sub>
- Ultra-Low Stand-by Current, I<sub>SD</sub>
  - 20 nA Typ. at 5.5 V<sub>IN</sub>
  - 4 nA Typ. at 3.3 V<sub>IN</sub>
  - 3 nA Typ. at 2.5 V<sub>IN</sub>
- Output Discharge Switch When Disabled

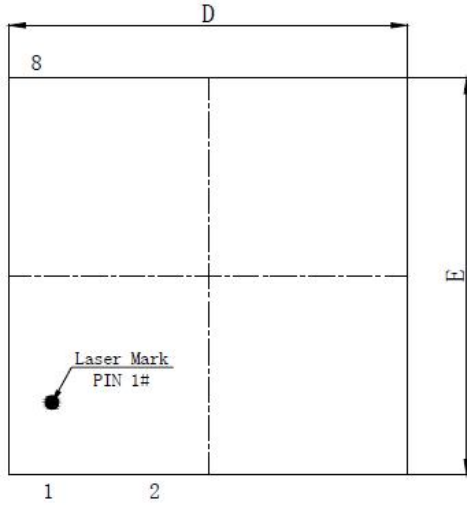
## PACKAGE



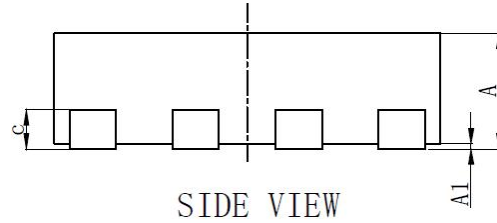
## DEVICE ORDERING INFORMATION

Part Number	Top Mark	R <sub>ON</sub> (Typ) at 5.5 V <sub>IN</sub>	TRCB	Output Discharge	V <sub>OUT</sub> Rise Time t <sub>R</sub> (Typ) at 3.3 V <sub>IN</sub>	EN Activity
GLF1421-D1G7	DS	175 mΩ	Yes	95 Ω	465 μs at SR= High 50 μs at SR= GND	High

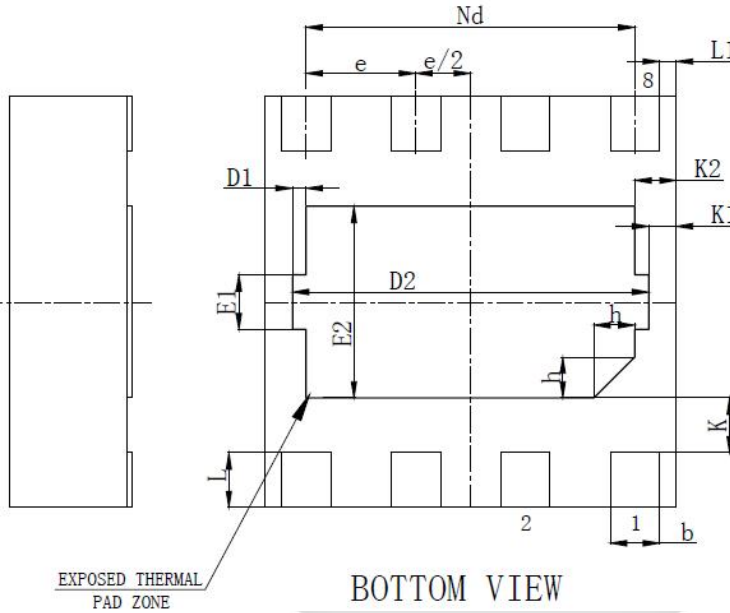
**PACKAGE OUTLINE**



TOP VIEW



SIDE VIEW

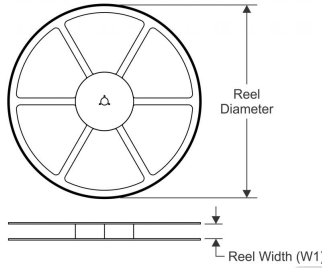


BOTTOM VIEW

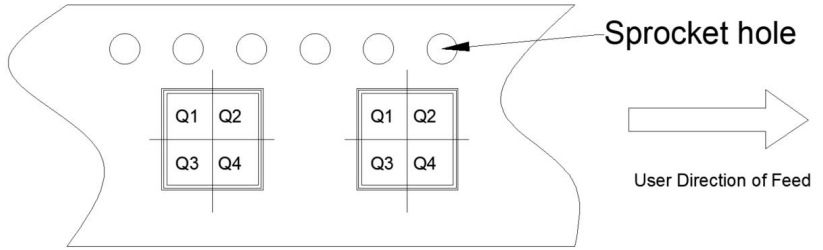
SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.40	0.45	0.50
A1	0.00	0.02	0.05
b	0.13	0.18	0.23
c	0.152REF		
D	1.45	1.50	1.55
D1	0.05REF		
D2	1.20	1.30	1.40
e	0.40BSC		
Nd	1.20BSC		
E	1.45	1.50	1.55
E1	0.20REF		
E2	0.60	0.70	0.80
L	0.15	0.20	0.25
L1	0.06REF		
K	0.20REF		
K1	0.10REF		
K2	0.15REF		
h	0.10	0.15	0.20

**TAPE AND REEL INFORMATION**

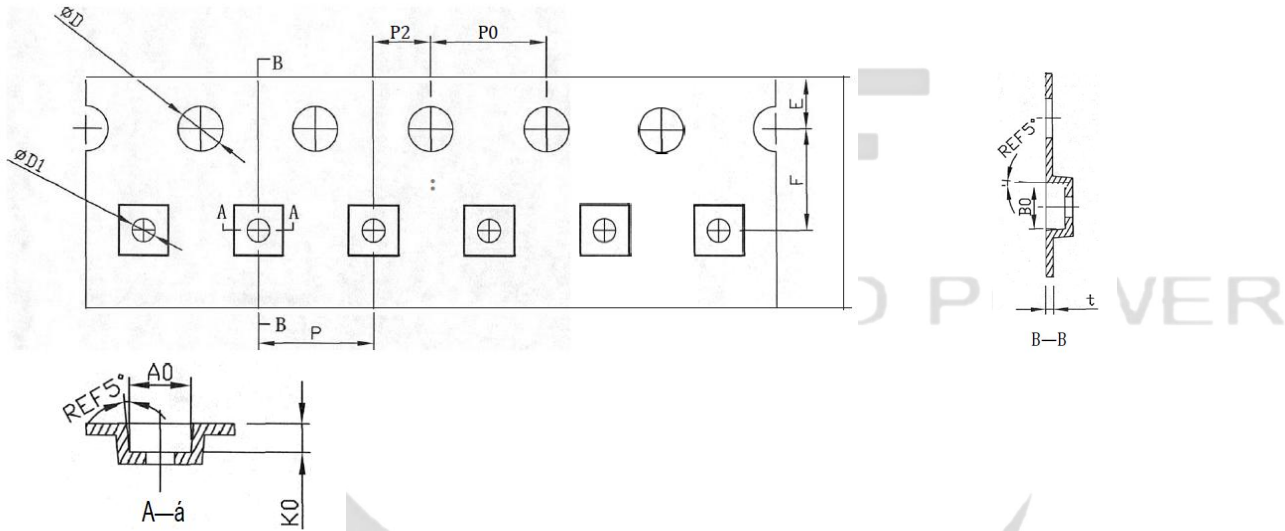
**REEL DIMENSIONS**



**QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE**



**TAPE DIMENSIONS**



Device	Package	Pins	SPQ	Reel Diameter(mm)	Reel Width W1	A0	B0	K0	P	W	Pin1
GLF1421-D1G7	DFN1.5x1.5	8	3000	178	8.6	1.7	1.7	0.76	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
- P1: Pitch between successive cavity centers