GLF1401 / GLF1403

6 A Dual Channel Programmable Slew Rate Power Switch

Product Specification

DESCRIPTION

The GLF1401 / GLF1403 is a dual channel integrated load switch with the VariRise™ technology which provides the programmable slew rate of variable output voltage rising times.

Each channel of the GLF1401 / GLF1403 operates independently over an input range from 0.6 V to 5.5 V and supports 6 A maximum continuous output current per channel. The GLF1401 / GLF1403 feature 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 improve system efficiency.

The SR input pin allows the user to add an external capacitor 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 drop.

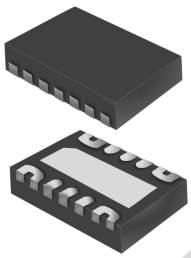
FEATURES

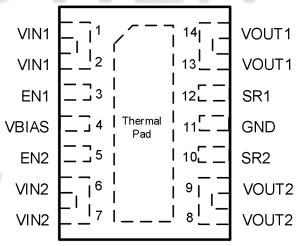
- Input Voltage Range: 0.6 V to 5.5 V
- V_{BIAS} Voltage Range: 2.5 V to 5.5 V
- 6 A Continuous Output Current Per Channel
- Low R_{ON}: 19 mΩ Typ. at V_{IN} = V_{BIAS} = 5 V
- Low Quiescent Current, I_{Q_BIAS}
  - 15 μA Typ. at $V_{IN1\ or\ 2}$ = V_{BIAS} = 5 V, Single Channel
  - 18 μA Typ. at $V_{IN1\&2}$ = V_{BIAS} = 5 V, Both Channel
- Low Shutdown Current of VIN, I_{SD_VIN}
  - 8 nA Typ. at V_{IN} = 5.5 V, Per Channel
- Programmable VOUT Rising Time
- Output Discharge Switch When Disabled
- Reverse Current Blocking Protection When Disabled
- Thermal Shutdown Protection

APPLICATIONS

- Notebook and Computing Devices
- Communication / Network System
- Storage Devices

PACKAGE





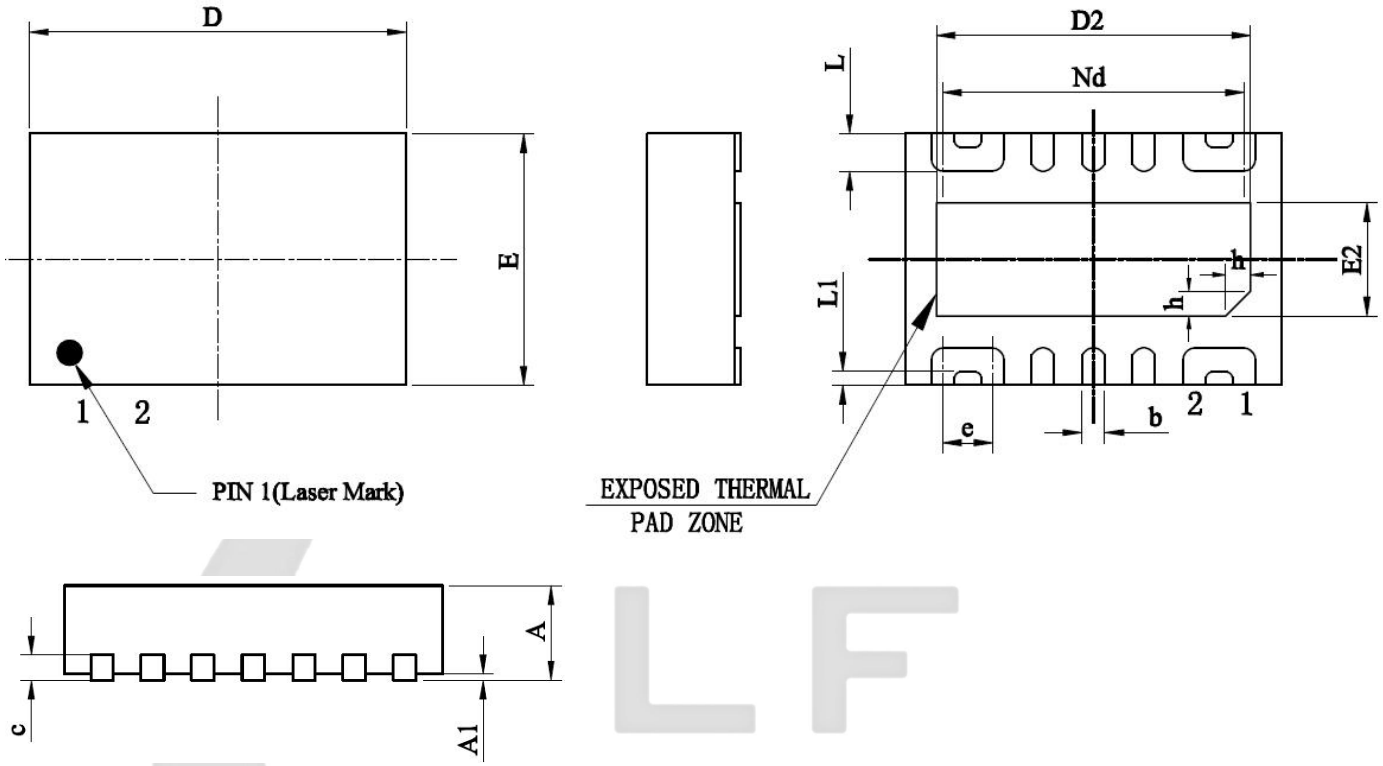
TOP VIEW

2 mm x 3 mm DFN-14L

DEVICE ORDERING INFORMATION

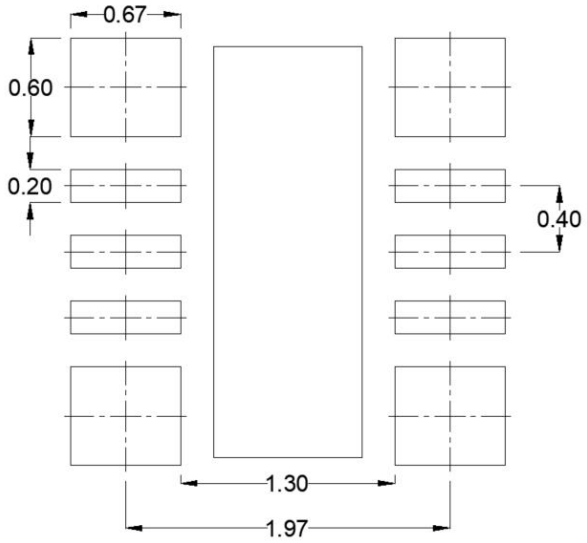
Part Number	Top Mark	R_{ON} (Typ) at 5 V_{IN}	Output Discharge	V_{OUT} Rise Time, t_R (Typ) at 5 V_{IN}	EN Activity
GLF1401-D3G7	HD	19 mΩ	200 Ω	1.97 ms	High
GLF1403-D3G7	EG	19 mΩ	200 Ω	1 ms	High

PACKAGE OUTLINE



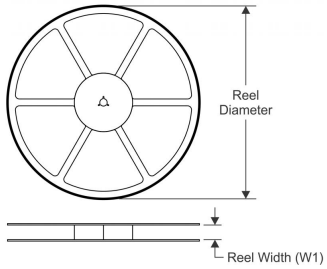
SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.70	0.75	0.80
A1	0.01	0.02	0.05
b	0.13	0.18	0.23
c	0.15	0.20	0.25
D	2.95	3.00	3.05
D2	2.45	2.50	2.55
e	0.40BSC		
Nd	2.40BSC		
E	1.95	2.00	2.05
E2	0.85	0.90	0.95
L	0.25	0.30	0.35
L1	0.06	0.11	0.16
h	0.20REF		

Recommended Footprint

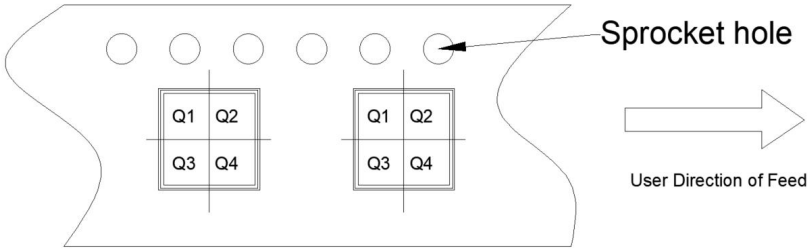


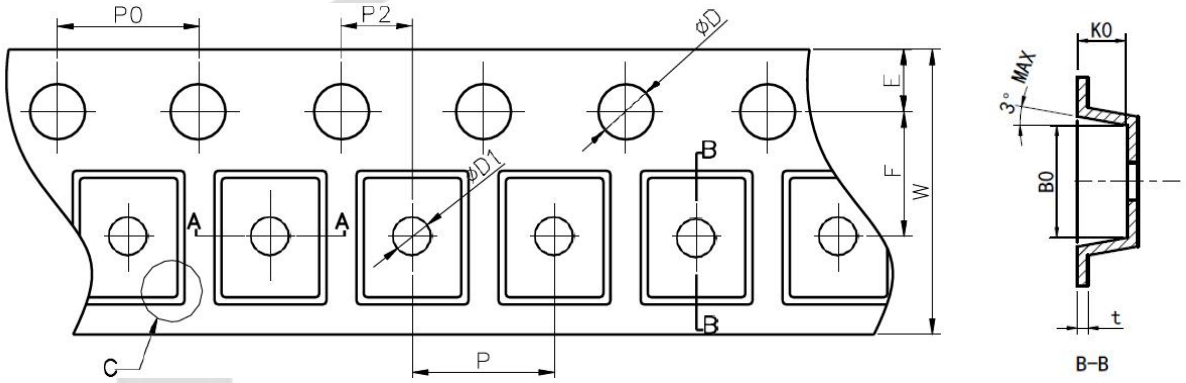
TAPE AND REEL INFORMATION

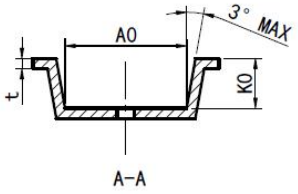
REEL DIMENSIONS



QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE







Device	Package	Pins	SPQ	Reel Diameter (mm)	Reel Width W1	A0	B0	K0	P	W	Pin1
GLF1401-D3G7	DFN2x3	14	3000	178	8.6	2.3	3.3	0.95	4	8	Q1
GLF1403-D3G7	DFN2x3	14	3000	178	8.6	2.3	3.3	0.95	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