GLF1501

3 A Ultra Low Current Consumption N-channel Load Switch with Lower Input Voltage Range and Reverse Current Blocking

Product Specification

DESCRIPTION

The GLF1501 load Switch is a fully integrated 3 A NMOS load switch with I_QSmart™ advanced technology. The device is targeted for the mobile computing and data storage markets as a high performance, low-cost solution for load switch applications.

The GLF1501 has a constant low on-resistance of 52 mΩ at room temperature. The fixed rise time helps prevent undesirable inrush current when turned on and the internal EN pin pulldown resistor ensures the device remains in the shutdown mode when disabled. In shutdown mode the GLF1501 draws only 6 nA typical at 3.6 V input supply voltage.

The GLF1501 features a reverse current blocking protection. When the GLF1501 is disabled, it prevents reverse current flowing from the output to the input source.

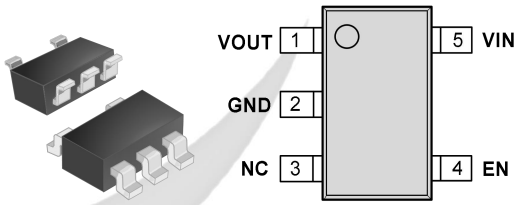
FEATURES

- Supply Voltage Range: 0.85 V to 3.6 V
- Low R_{ON}: 52 mΩ Typ at Supply Voltage Range
- I_{OUT} Max: 3 A
- Ultra-Low I_Q:
  - 50 nA Typ at 0.85 V_{IN}
  - 60 nA Typ at 1.0 V_{IN}
  - 120 nA Typ at 1.5 V_{IN}
- Integrated Slew Rate Control Driver
- Reverse Current Blocking Protection When Disabled
- Internal EN Pull-Down Resistor
- Integrated Output Discharge Switch
- HBM: 4 kV, CDM: 2 kV

APPLICATIONS

- Low Power Subsystems
- Wearables
- Data Storage

PACKAGE

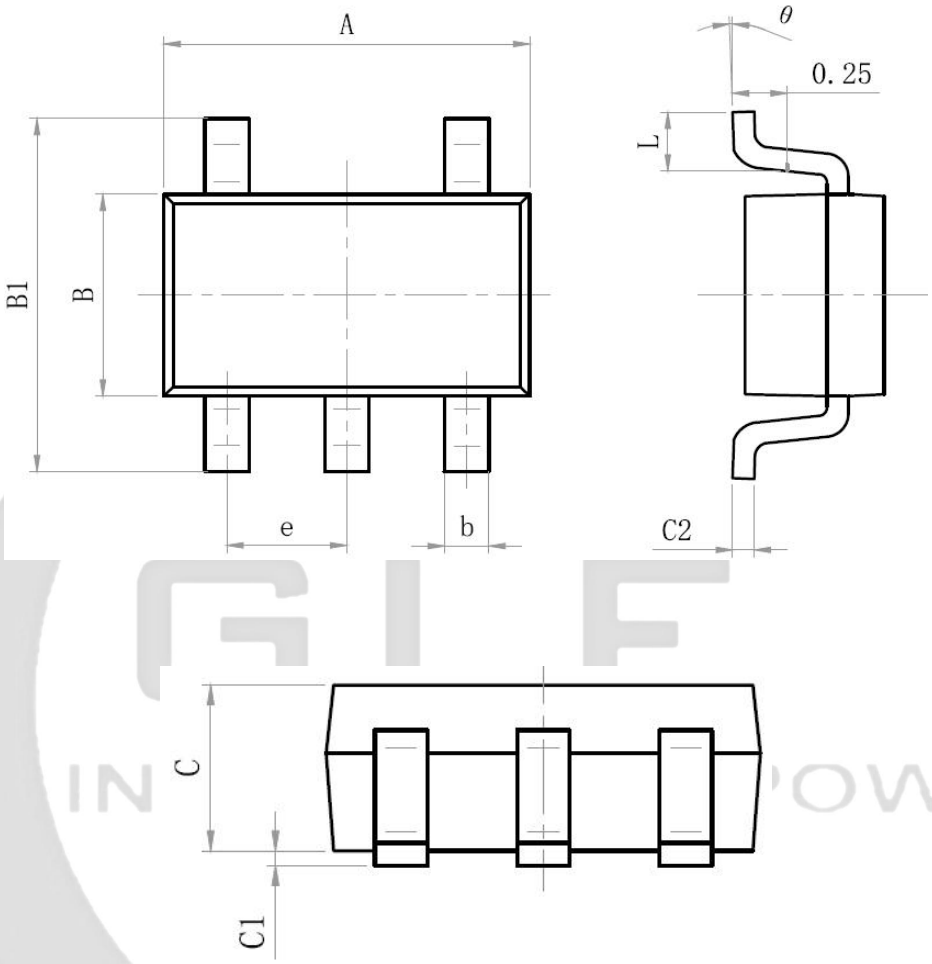


SOT23-5L

ALTERNATE DEVICE OPTIONS

Part Number	Top Mark	R_{ON} (Typ) at Vin Range	Output Discharge	EN Activity
GLF1501-T1G7	FC	52 mΩ	85 Ω	High

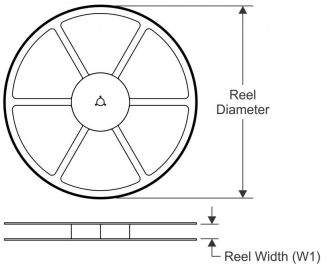
PACKAGE OUTLINE



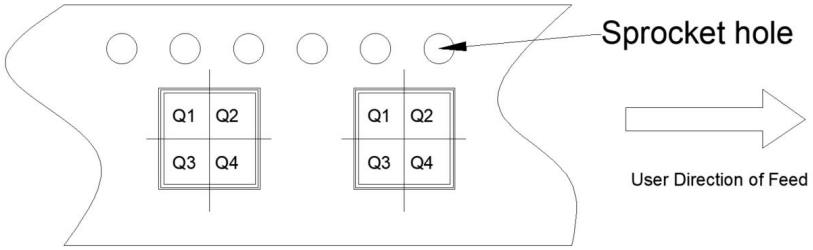
Size / Mark	Min(mm)	Max(mm)	Size / Mark	Min(mm)	Max(mm)
A	2.82	3.02	C	1.05	1.15
e	0.95 (BSC)		C1	0.03	0.15
b	0.28	0.45	C2	0.12	0.23
B	1.50	1.70	L	0.35	0.55
B1	2.60	3.00	θ	0°	8°

TAPE AND REEL INFORMATION

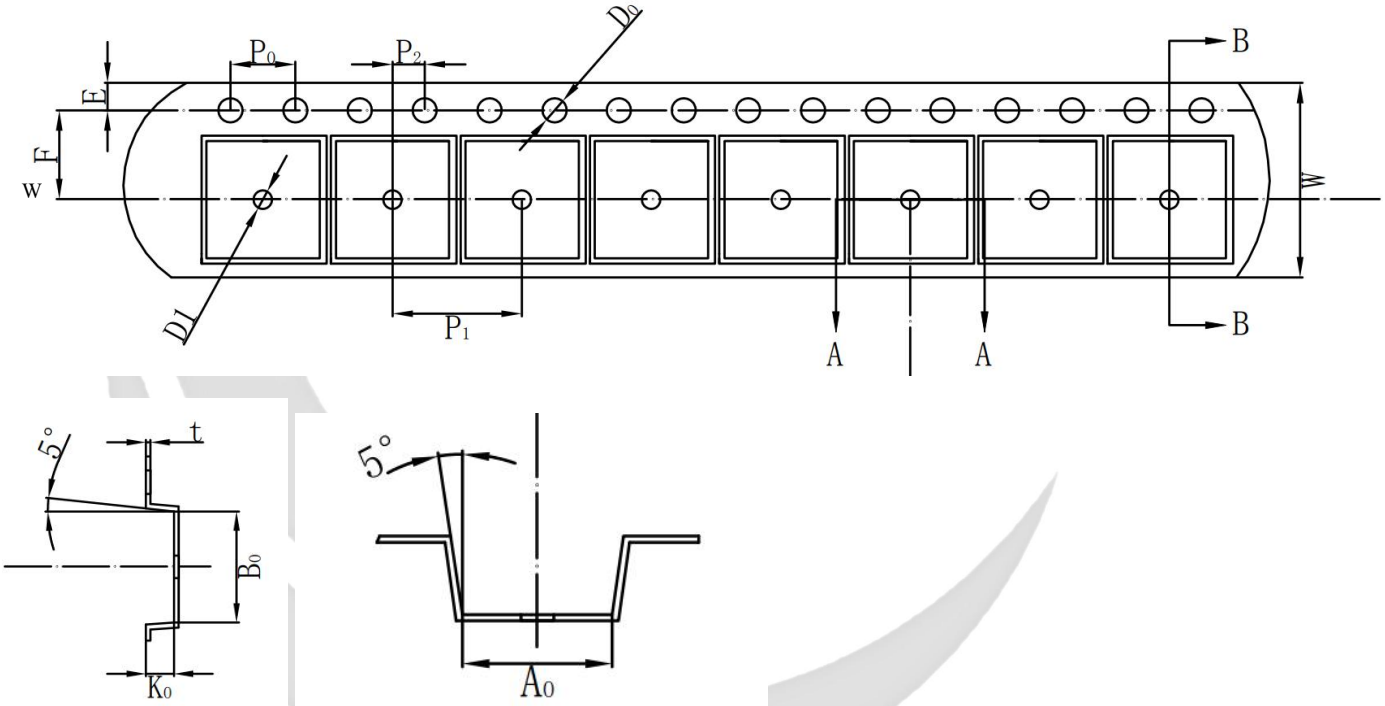
REEL DIMENSIONS



QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE



TAPE DIMENSIONS



Device	Package	Pins	SPQ	Reel Diameter (mm)	Reel Width W1	A0	B0	K0	P1	W	Pin1
GLF1501-T1G7	SOT23-5	5	3000	178	9	3.25	3.30	1.38	4	8	Q3

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