

DESCRIPTION

The GLF1591T and GLF1591LT are fully integrated 1 A load switches. The device is ideal for the mobile computing and data storage markets as a high-performance solution for load switch applications.

The GLF1591T and GLF1591LT support ultra-low VIN range applications, with an input supply voltage range of 0.3 V to 5.5 V and require an additional VBIAS power supply.

The GLF1591T and GLF1591LT are available in a ultra-thin wafer level chip scale package (WLCSP) measuring 0.67 mm x 1.02 mm x 0.35 mm with a 0.35 mm pitch. This allows the user to save board space.

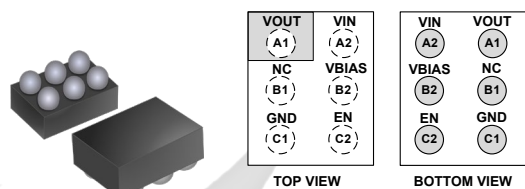
FEATURES

- Input Voltage Range, V_{IN} : 0.3 V to 5.5 V
- Supply voltage range, V_{BIAS} : 1.5 V to 5.5 V
- Ultra-Low On-Resistance, R_{ON}
 - 30 m Ω Typ. at $V_{IN} = 0.3$ V, $V_{BIAS} = 1.5$ V
 - 33 m Ω Typ. at $V_{IN} = V_{BIAS} = 5.5$ V
- 1.0 A Maximum Continuous Output Current
- Quiescent Current, I_{Q_BIAS}
 - 4 μ A Typ. at $V_{IN} = 0.3$ V, $V_{BIAS} = 1.5$ V
 - 5 μ A Typ. at $V_{IN} = 0.3$ V, $V_{BIAS} = 5.5$ V
- Shutdown Current, I_{SD_BIAS}
 - 14 nA Typ. at $V_{BIAS} = 3.3$ V
- Shutdown Current, I_{SD_VIN}
 - 6 nA Typ. at $V_{IN} = 5.5$ V
- Reverse Current Blocking When Disabled
- Output Discharge Switch
- Operating Temperature Range
- 40°C to + 85°C

APPLICATIONS

- Smart doorbell.
- Low-voltage system
- Portable device

PACKAGE

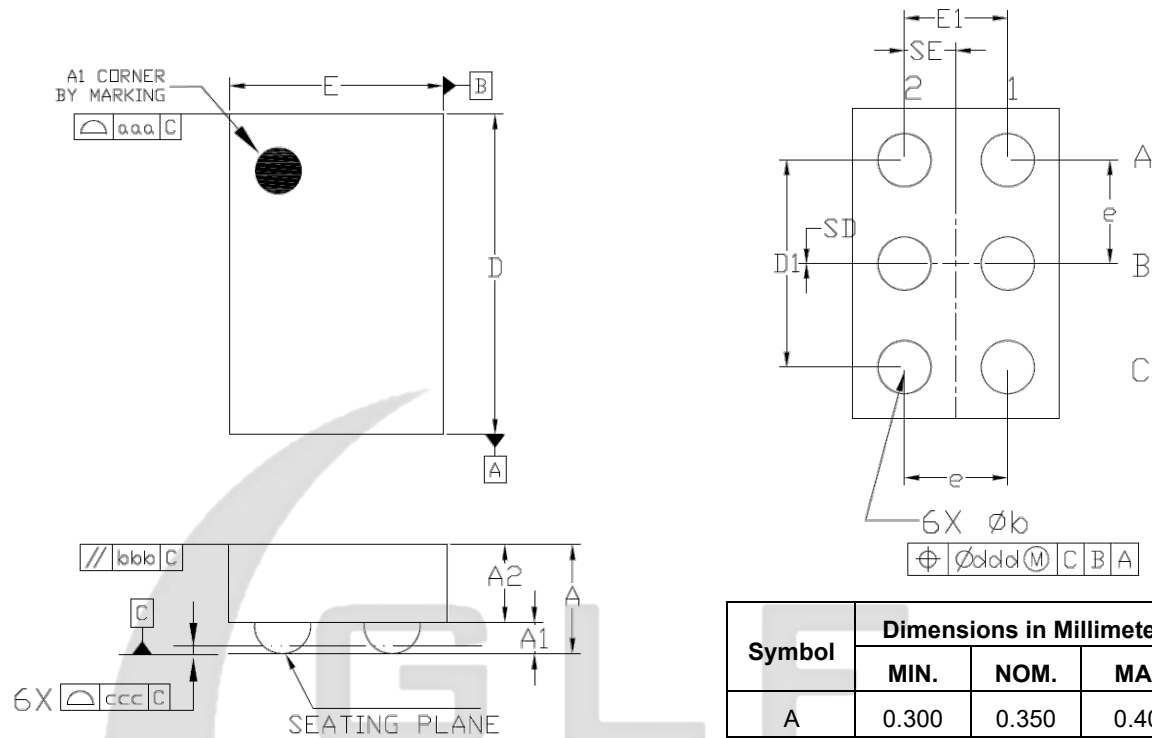


0.67 mm x 1.02 mm x 0.35 mm Thin WLCSP

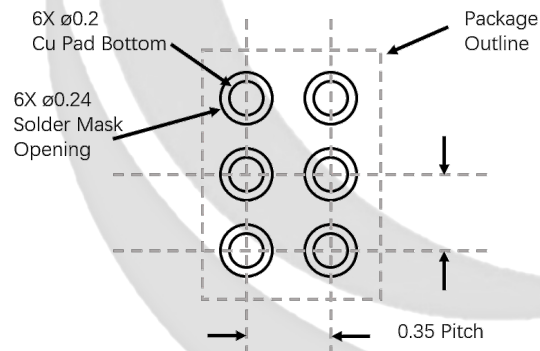
DEVICE ORDERING INFORMATION

Part Number	Top Mark	R_{ON} (Typ.) $V_{IN}=V_{BIAS}=5.5$ V	Output Discharge (Typ.)	EN Activity	Package
GLF1591T-S97	DY	33 m Ω	150 Ω	High	0.67 mm x 1.02 mm x 0.35 mm Thin WLCSP
GLF1591LT-S97	EY			Low	

PACKAGE OUTLINE



Recommended Footprint



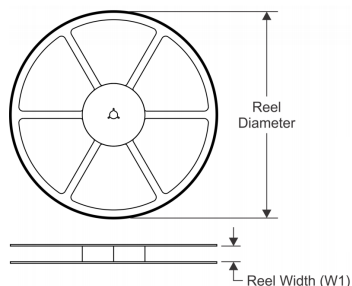
Notes

- 1, All DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES)
- 2, DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994

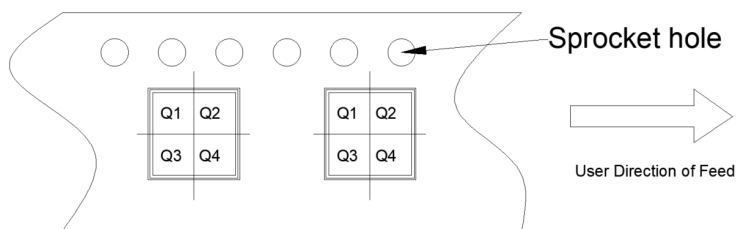
Symbol	Dimensions in Millimeters		
	MIN.	NOM.	MAX.
A	0.300	0.350	0.400
A1	0.075	0.100	0.125
A2	0.225	0.250	0.275
D	1.005	1.020	1.035
E	0.655	0.670	0.685
D1	0.650	0.700	0.750
E1	0.300	0.350	0.400
b	0.175	0.210	0.245
e	0.350 BSC		
SD	0.000 BSC		
SE	0.175 BSC		
Tol. of Form & Position			
aaa	0.10		
bbb	0.10		
ccc	0.05		
ddd	0.05		

TAPE AND REEL INFORMATION

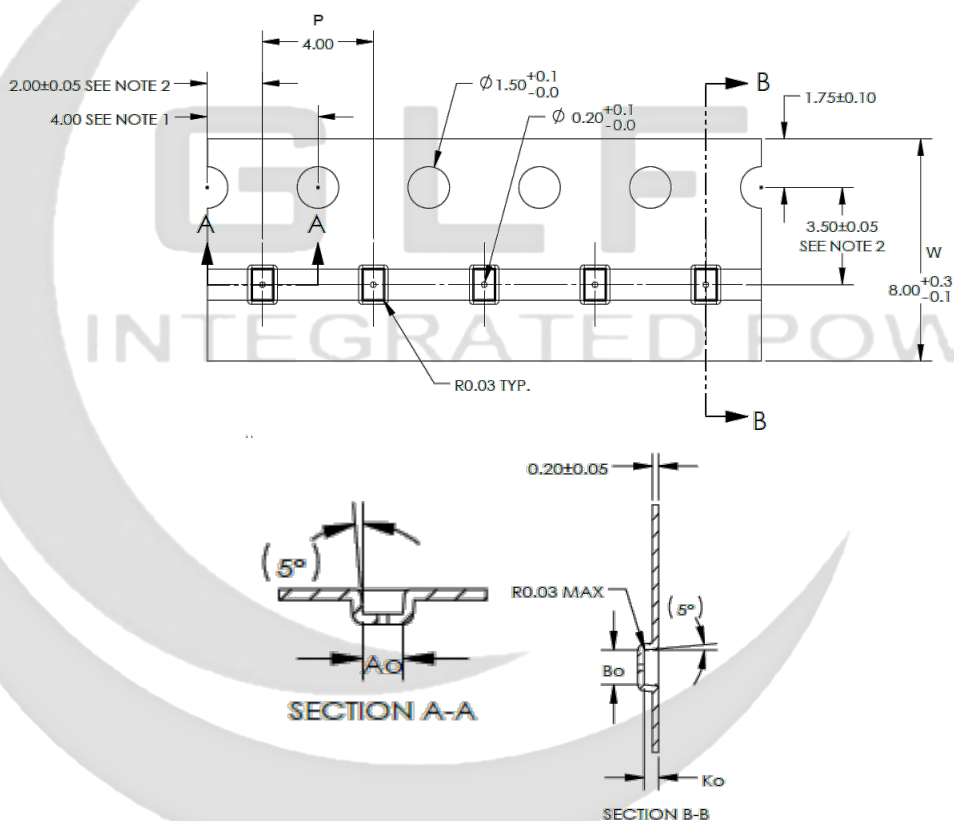
REEL DIMENSIONS



QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE



TAPE DIMENSIONS



Device	Package	Pins	SPQ	Reel Diameter (mm)	Reel Width W1	A0	B0	K0	P	W	Pin1
GLF1591T-S97	WLCSP	6	4000	180	9	0.77	1.12	0.47	4	8	Q1
GLF1591LT-S97											

Remark:

- A0: Dimension designed to accommodate the component width
- B0: Dimension designed to accommodate the component length
- K0: Dimension designed to accommodate the component thickness
- W: Overall width of the carrier tape
- P: Pitch between successive cavity centers