

### DESCRIPTION

The GLF1592T, GLF1593T and GLF1593LT are fully integrated 2 A N-channel load switches. The device is ideal for the mobile computing and data storage markets as a high-performance solution for load switch applications.

The GLF1592T, GLF1593T and GLF1593LT support ultra-low  $V_{IN}$  range applications, with an input supply voltage range of 0.6 V to 5.5 V and does not require another additional power supply.

The GLF1592T, GLF1593T and GLF1593LT are available in 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 helps user to save board space.

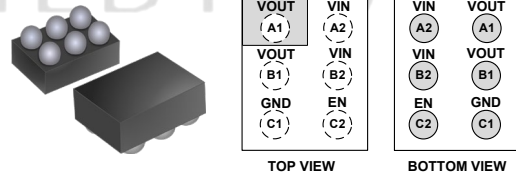
### FEATURES

- Wide Input Voltage Range,  $V_{IN}$ : 0.6 V to 5.5 V
- Low On-Resistance,  $R_{ON}$ : 24 m $\Omega$  at 3.3  $V_{IN}$
- 2.0 A Maximum Continuous Output Current
- Low Quiescent Current,  $I_Q$ 
  - 2.5  $\mu$ A at  $V_{IN} = 0.6$  V
  - 16  $\mu$ A at  $V_{IN} = 3.3$  V
- Low Shutdown Current,  $I_{SD}$ 
  - 8 nA at  $V_{IN} = 0.6$  V
  - 10 nA at  $V_{IN} = 3.3$  V
- Output Discharge Switch:
  - Only GLF1593T and GLF1593LT
- Reverse Current Blocking When Disabled
- Operating Temperature Range
  - 40  $^{\circ}$ C to + 85  $^{\circ}$ C

### APPLICATIONS

- Smart doorbell
- Wearables
- Low Power Subsystems
- Portable device

### PACKAGE

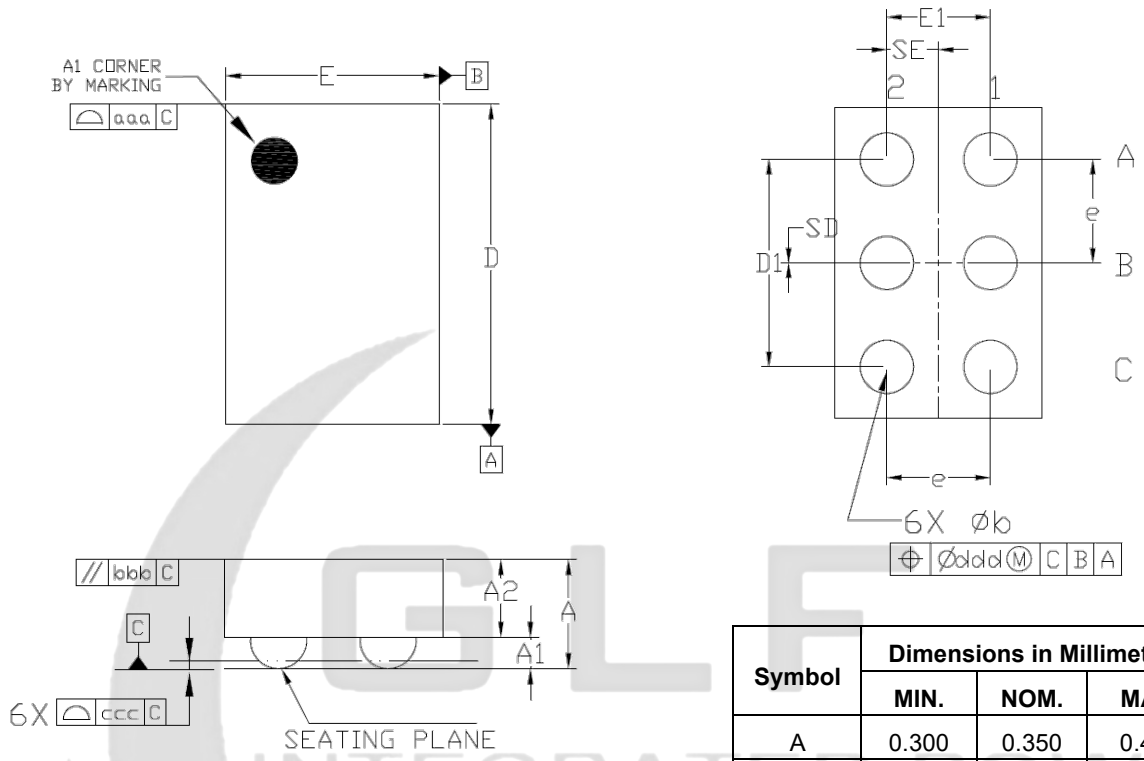


0.67 mm x 1.02 mm x 0.35 mm Thin WLCSP

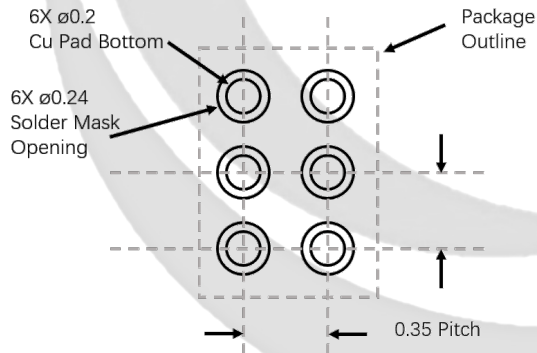
### DEVICE ORDERING INFORMATION

Part Number	Top Mark	$R_{ON}$ (Typ.) at 3.3 $V_{IN}$	Output Discharge (Typ.)	EN Activity	Package
GLF1592T-S97	GW	24 m $\Omega$	NA	High	0.67 mm x 1.02 mm x 0.35 mm Thin WLCSP
GLF1593T-S97	FY		150 $\Omega$	High	
GLF1593LT-S97	GY			Low	

**PACKAGE OUTLINE**



**Recommended Footprint**

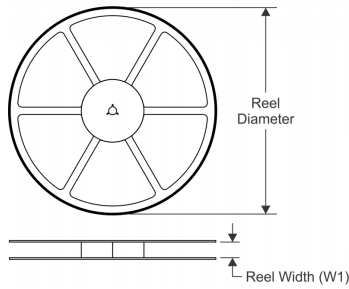


Symbol	Dimensions in Millimeters		
	MIN.	NOM.	MAX.
A	0.300	0.350	0.400
A1	0.075	0.100	0.125
A2	0.225	0.250	0.275
D	1.005	1.020	1.035
E	0.655	0.670	0.685
D1	0.650	0.700	0.750
E1	0.300	0.350	0.400
b	0.175	0.210	0.245
e	0.350 BSC		
SD	0.000 BSC		
SE	0.175 BSC		
Tol. of Form & Position			
aaa	0.10		
bbb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

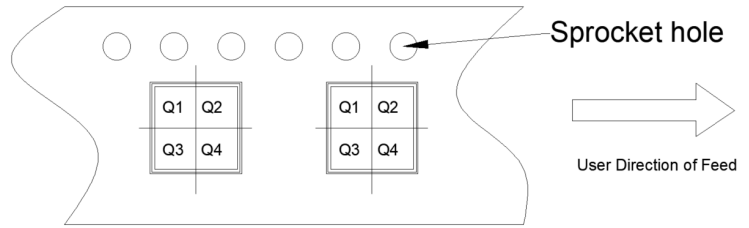
Notes  
 1, All DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES),  
 2, DIMENSIONING AND TOLERANCING PER ANSI Y14,5M-1994,

**TAPE AND REEL INFORMATION**

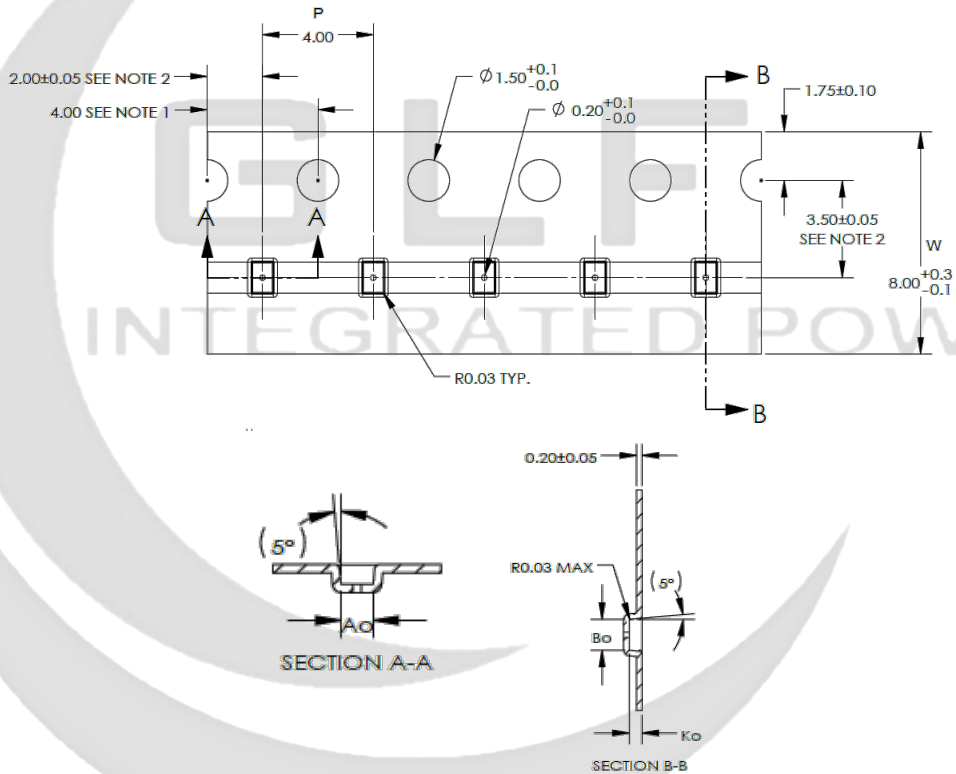
**REEL DIMENSIONS**



**QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE**



**TAPE DIMENSIONS**



Device	Package	Pins	SPQ	Reel Diameter (mm)	Reel Width W1	A0	B0	K0	P	W	Pin1
GLF1592T-S97	WLCSP	6	4000	180	9	0.77	1.12	0.47	4	8	Q1
GLF1593T-S97											
GLF1593LT-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