

DESCRIPTION

The GLF73511 is a highly efficient IC, with accurate 1.95V over discharge voltage protection for Battery safety.

The over discharge voltage protection keeps a rechargeable battery working within the desired safe operating condition. As the battery voltage decreases below the over discharge detection voltage level (V_{OD}), the GLF73511 power switch is turned off immediately to cut off the battery power rail, consuming an ultra-low leakage current (I_{SD}) to save the battery.

The GLF73511 provides a shipping mode pin to prevent smart devices with a non-removable battery from discharging during the shipping period. When a charged battery cell is connected, the GLF73511 remains in the off state and consumes an ultra-low leakage current (I_{SD}) before activation.

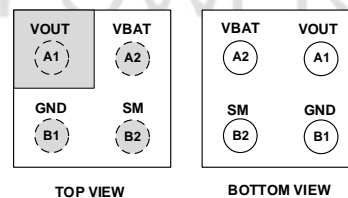
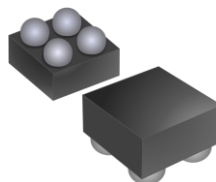
FEATURES

- V_{OD} , Over Discharge Voltage Detection: 1.95 V_{BAT}
- Latch-off at Over Discharge Voltage Detection.
- Activated by Applying V_{ON} to the VOUT Pin from Charger
- Activated by Pull Down the SM Pin
- Shipping Mode Implementation
- Low R_{ON} : 145 m Ω Typ. at 3.6 V_{BAT}
- $I_Q = 510$ nA Typ at 3.6 V_{BAT}
- Shutdown Current
 - $I_{SD} = 3.0$ nA Typ. at $V_{BAT} < V_{OD}$
 - $I_{SD} = 6.0$ nA Typ. at $V_{BAT} = 3.6$ V, Shipping Mode
 - $I_{SD} = 8.0$ nA Typ. at $V_{BAT} = 4.2$ V, Shipping Mode
- 0 V Battery Charging
- HBM: 2 kV, CDM: 2 kV

APPLICATIONS

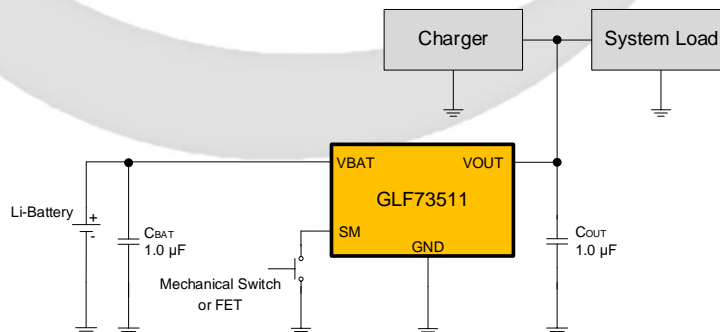
- BLE Wireless Earphone
- Hearing Aid
- Wearables and Smart IoT Devices

PACKAGE



0.67 mm x 0.67 mm x 0.425 mm WLCSP

APPLICATION DIAGRAM

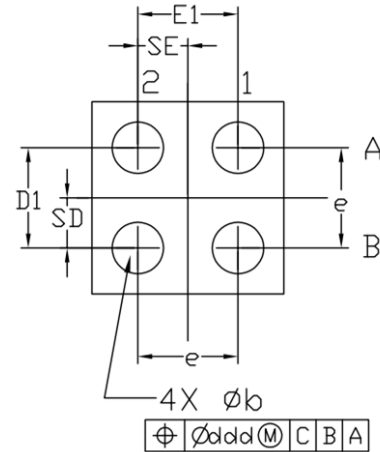
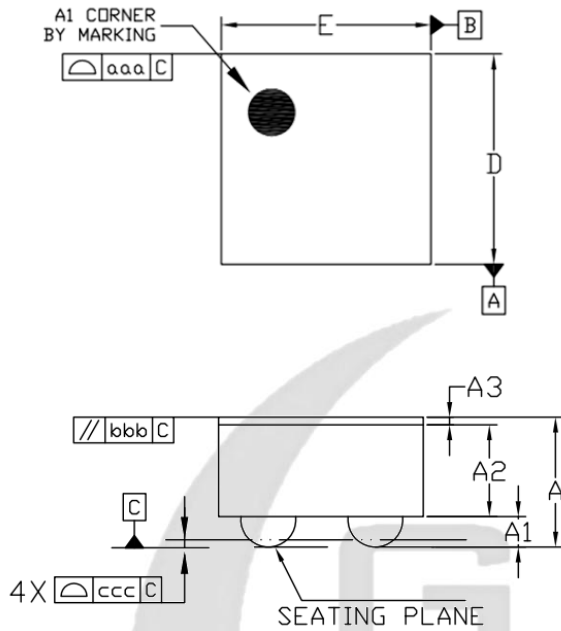


Notes

- 1) The SM pin can be controlled by a GPIO.
- 2) The C_{BAT} is recommended. It helps to mitigate voltage surges when a charged battery cell is connected.

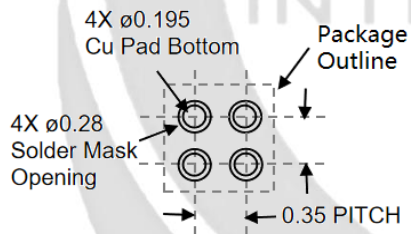
Figure 1. Application Diagram

PACKAGE OUTLINE



Dimensional Ref.			
REF.	Min.	Nom.	Max.
A	0.380	0.425	0.470
A1	0.085	0.100	0.115
A2	0.275	0.300	0.325
A3	0.020	0.025	0.030
D	0.655	0.670	0.685
E	0.655	0.670	0.685
D1	0.300	0.350	0.400
E1	0.300	0.350	0.400
b	0.145	0.180	0.215
e	0.350 BSC		
SD	0.175 BSC		
SE	0.175 BSC		
Tol. of Form&Position			
aaa	0.10		
bbb	0.10		
ccc	0.05		
ddd	0.05		

Recommended Footprint



Notes

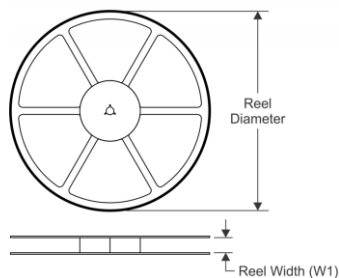
1. ALL DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES)
2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994.
3. A3: BACKSIDE LAMINATION

PACKAGING INFORMATION

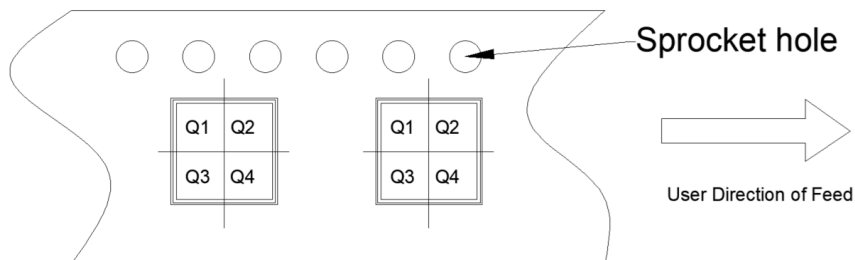
Part Number	Package	Pins	Pitch	Top Mark	Moisture Sensitivity Level	Environmental Information
GLF73511-S67	WLCSP	4	0.35mm	7	MSL1	ROHS+HF

TAPE AND REEL INFORMATION

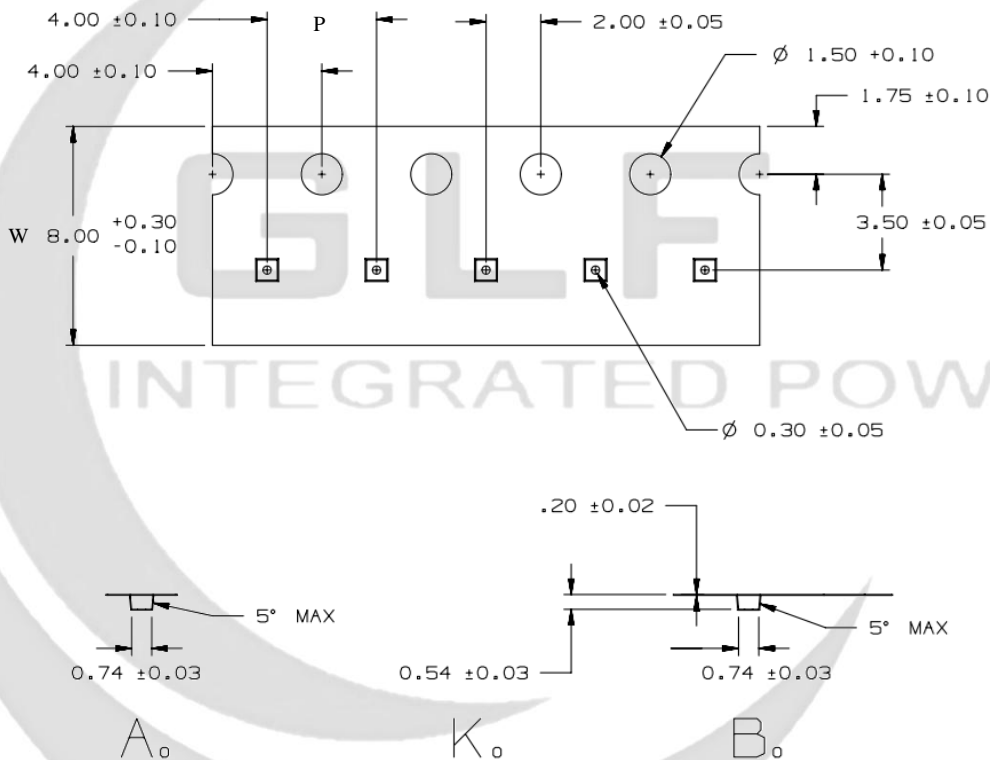
REEL DIMENSIONS



QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE



TAPE DIMENSIONS



Device	Package	Pins	SPQ	Reel Diameter (mm)	Reel Width W1	A0	B0	K0	P	W	Pin1
GLF73511-S67	WLCSP	4	4000	180	9	0.74	0.74	0.54	4	8	Q1

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