

DESCRIPTION

The GLF4013 is an ultra-low I_Q integrated power multiplexer IC with dual independent power switches connected to a single output pin to enable seamless transition between two input sources. The GLF4013 features symmetrical power FET characteristics. Channel 1 (VIN1) and channel 2 (VIN2) provide ultra-low conduction resistance to support 6 A continuous current capability. It is an ideal solution for a power system with an internal back up power source.

The GLF4013 provides an automatic selection mode and a manual selection mode. The switching of these two modes is executed by combining the S1 and S2 pin settings. In the automatic input selection mode, the GLF4013 automatically selects a higher input voltage source between two input power sources.

The GLF4013 prevents cross conduction current between two input sources. When VOUT is higher than VIN, the GLF4013 prevents the reverse current from the output to the input, no matter which input supply is applied.

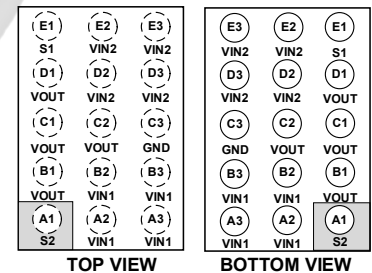
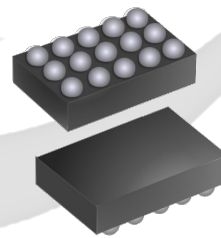
FEATURES

- Two-Input and Single-Output Power Multiplexer IC
- Auto & Manual Selection Mode
- Wide Input Range: 1.5 V to 5.5 V
- Low R_{ON}
 - 16 m Ω Typ at 5.5 V_{IN}
- I_{OUT} Max: 6 A Per Channel, VIN1 and VIN2
- Ultra-low Quiescent Current
 - I_Q : 1.4 μA Typ at 5.5 V_{IN}
- Low Shutdown Current
 - I_{SD} : 1.0 μA Typ at 5.5 V_{IN}
- Reverse Current Blocking Protection
- Thermal Shutdown Protection
- Wide Operating Temperature Range: - 40 °C to 105 °C

APPLICATIONS

- Smart Door Lock
- Subsystem with Backup Power
- Multi-channel Power Management
- Communication / Network System

PACKAGE

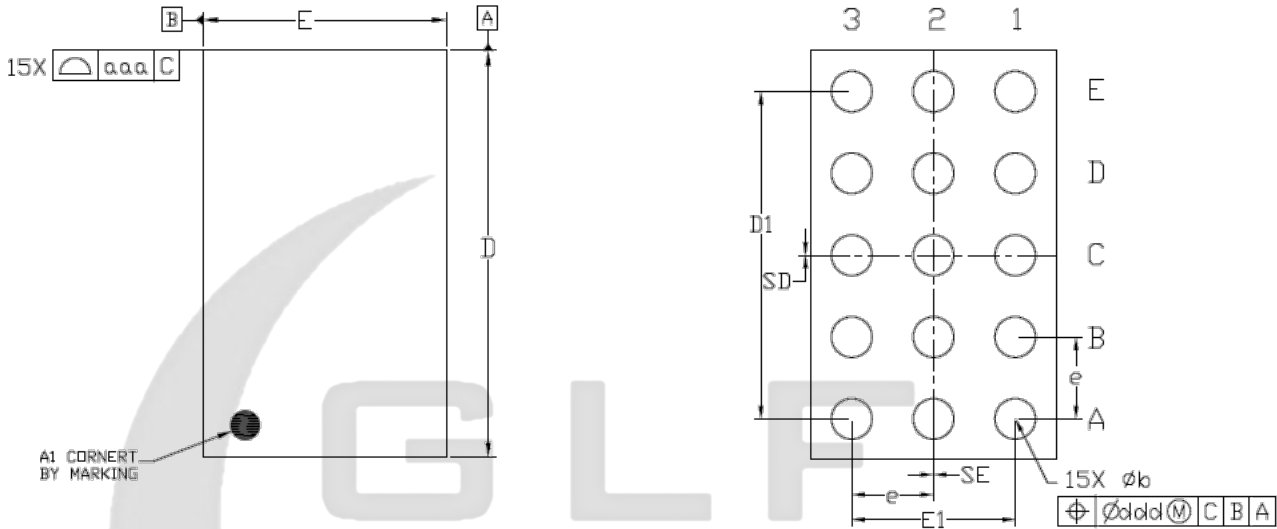


1.17 mm x 1.97 mm x 0.55 mm WLCSP

PRODUCT INFORMATION

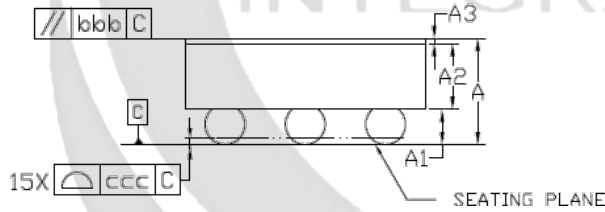
Part Number	Top Mark	R _{ON} (Typ.)	I _{OUT} (Max)	Package
GLF4013-SA7	ID	16 mΩ	6 A	1.17 mm x 1.97 mm x 0.55mm WLCSP

PACKAGE OUTLINE



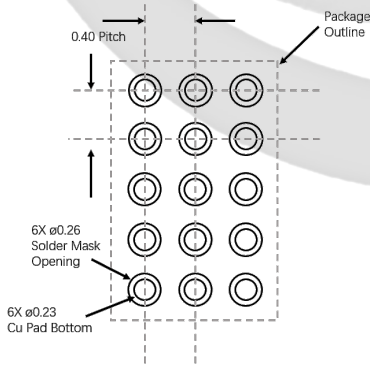
TOP VIEW

BOTTOM VIEW



REF.	Dimensions Ref.		
	Min.	Nom.	Max.
A	0.500	0.550	0.600
A1	0.149	0.175	0.201
A2	0.325	0.350	0.375
A3	0.020	0.025	0.030
D	1.955	1.970	1.985
E	1.155	1.170	1.185
D1	1.550	1.600	1.650
E1	0.750	0.800	0.850
b	0.197	0.232	0.267
e	0.400 BSC		
SD	0.000 BSC		
SE	0.000 BSC		
Tol. of Form & Position			
aaa	0.10		
bbb	0.10		
ccc	0.05		
ddd	0.05		

Recommended Footprint

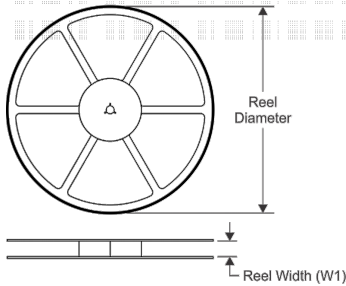


Notes

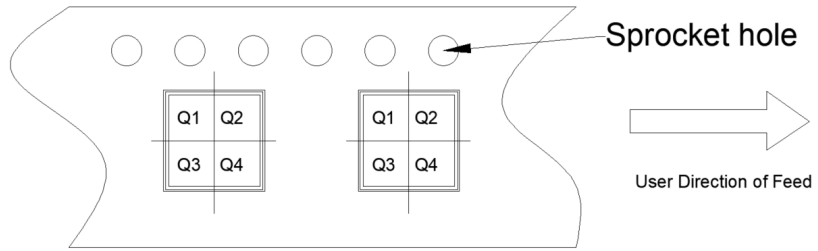
1. ALL DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES)
2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994.
3. A3: BACKSIDE LAMINATION

TAPE AND REEL INFORMATION

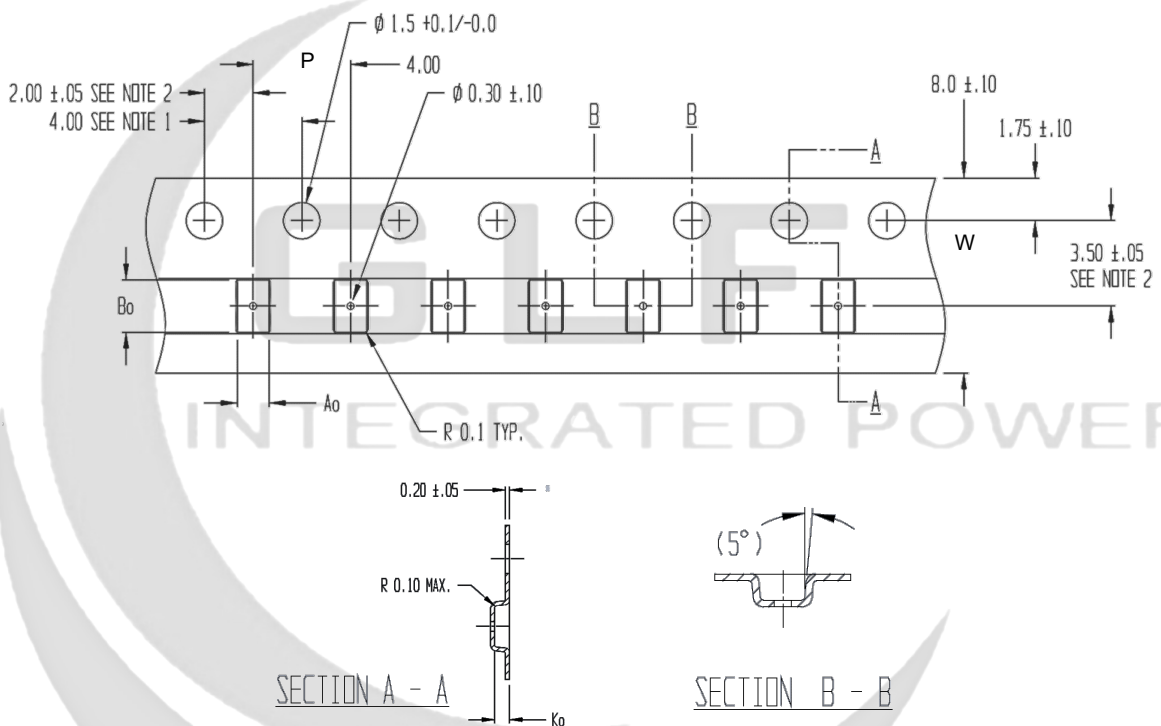
REEL DIMENSIONS



QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE



TAPE DIMENSIONS



Device	Package	Pins	SPQ	Reel Diameter (mm)	Reel Width W1	A0	B0	K0	P	W	Pin1
GLF4013-SA7	WLCSP	15	3000	180	9	1.32	2.15	0.77	4	8	Q2

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