

## DESCRIPTION

The GLF4007 is an integrated power multiplexer IC with dual independent power switches connected to a single output pin to enable seamless transition between two input sources. The GLF4007 features asymmetrical power FET characteristics. Channel 1 (VIN1) provides lower conduction resistance to support 4.0 A continuous current capability. The current rating of another channel (VIN2) is 3.0 A. It is an ideal solution for a power system with an internal back up power source.

The GLF4007 provides an automatic selection mode as well as a manual selection mode by the combination of the logic input pins of S1 and S2. The S1 input pin is used along with the S2 input pin to select the automatic switching function, select VIN1 only, select VIN2 only, or turn both switches off. In the automatic selection mode, the GLF4007 automatically select the higher input voltage source out of two input DC power supplies.

The GLF4007 prevents cross conduction current between two input sources. When VOUT is higher than VIN, the GLF4007 prevents the reverse current from the output to the input, no matter which input supply is applied.

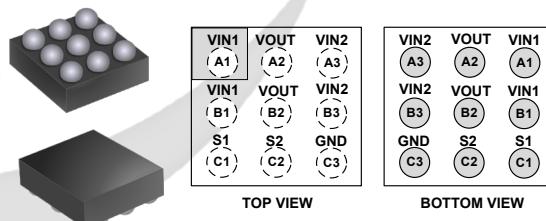
## APPLICATIONS

- Doorbell
- Internet Protocol Camera
- Subsystem with Backup Power
- IoT Tracking System
- Communication / Network System

## FEATURES

- Two-Input and Single-Output Power Multiplexer IC
- Auto and Manual Input Selection Mode
- Wide Input Range: 1.5 V to 5.5 V
- Low  $R_{ON}$ 
  - Channel 1, 20 mΩ Typ at 5.5 V<sub>IN</sub>
  - Channel 2, 30 mΩ Typ at 5.5 V<sub>IN</sub>
- $I_{OUT}$  Max
  - Channel 1 = 4.0 A at 2.0 V<sub>IN</sub> to 5.5 V<sub>IN</sub>
  - Channel 1 = 3.5 A at 1.5 V<sub>IN</sub> to 2.0 V<sub>IN</sub>
  - Channel 2 = 3.0 A at 1.5 V<sub>IN</sub> to 5.5 V<sub>IN</sub>
- Ultra-Low Supply Current at Operation
  - $I_Q$  : 1.1 μA Typ at 5.5 V<sub>IN</sub>
- Ultra-Low Shutdown Current
  - $I_{SD}$  : 550 nA Typ at 5.5 V<sub>IN</sub>
- Reverse Current Blocking Protection
- Operating Temperature Range: -40 °C to 85 °C

## PACKAGE

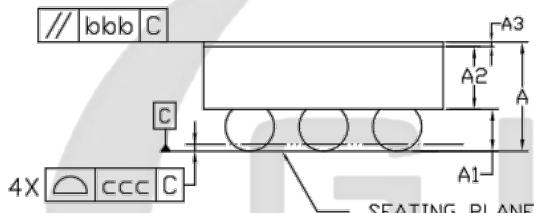
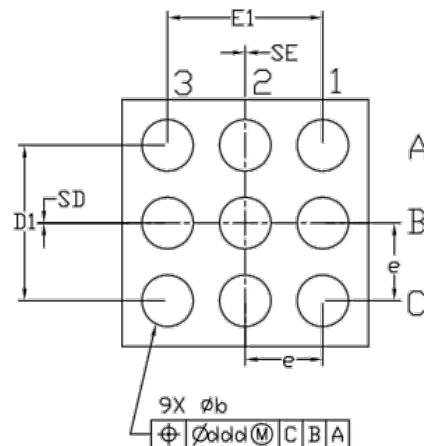
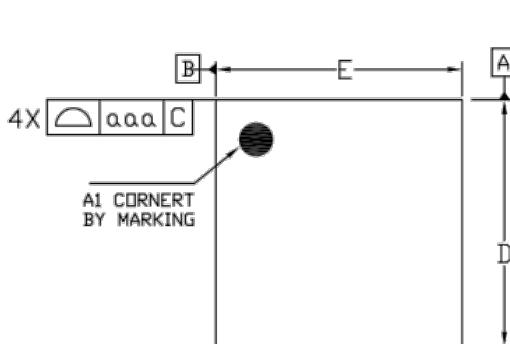


1.27 mm x 1.27 mm x 0.55 mm WLCSP

## PRODUCT INFORMATION

Part Number	Top Mark	Channel 1 (VIN1)		Channel 2 (VIN2)		Package
		$R_{ON1}$ at 5.5 V <sub>IN</sub>	$I_{OUT}$	$R_{ON2}$ at 5.5 V <sub>IN</sub>	$I_{OUT}$	
GLF4007-S57	HP	20 mΩ	4.0 A	30 mΩ	3.0 A	1.27 mm x 1.27 mm 9 Bumps WLCSP

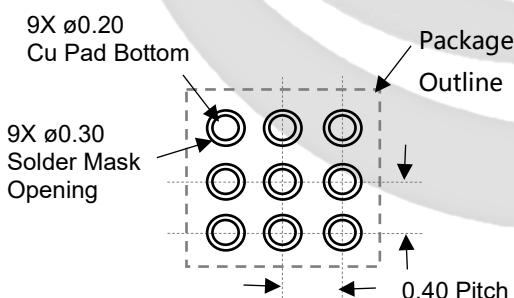
## PACKAGE OUTLINE



## Notes

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

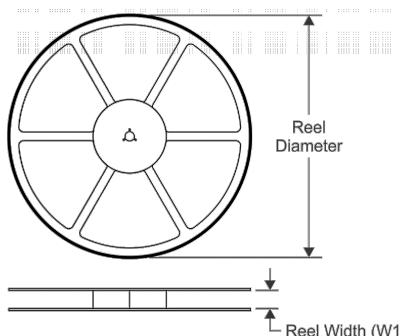
## Recommended Footprint



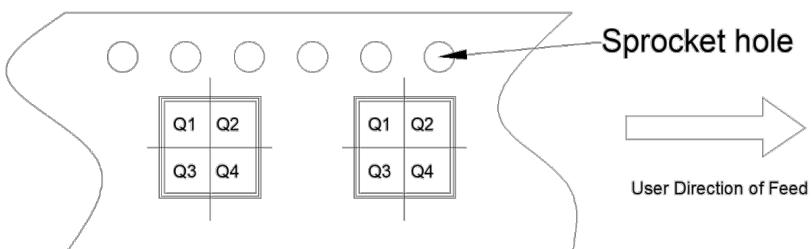
Dimensional Ref.			
REF.	Min.	Nom.	Max.
A	0.500	0.550	0.600
A1	0.175	0.200	0.225
A2	0.300	0.325	0.350
A3	0.020	0.025	0.030
D	1.255	1.270	1.285
E	1.255	1.270	1.285
D1	0.750	0.800	0.850
E1	0.750	0.800	0.850
b	0.215	0.265	0.315
e	0.400 BSC		
SD	0.000 BSC		
SE	0.000 BSC		
Tol. of Form&Position			
aaa	0.10		
bbb	0.10		
ccc	0.05		
ddd	0.05		

## TAPE AND REEL INFORMATION

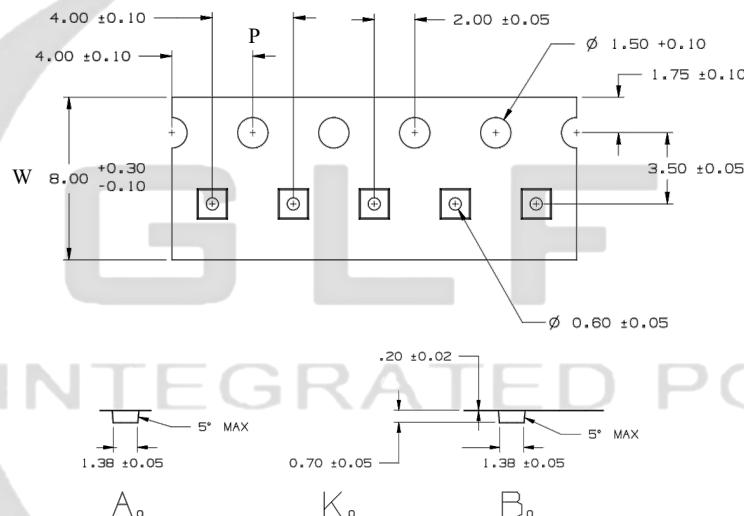
## REEL DIMENSIONS



## QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE



## TAPE DIMENSIONS



Device	Package	Pins	SPQ	Reel Diameter (mm)	Reel Width W1	A0	B0	K0	P	W	Pin1
GLF4007-S57	WLCSP	9	3000	180	9	1.38	1.38	0.78	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