

DESCRIPTION

The GLF4002 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 GLF4002 features asymmetrical power FET characteristics. Channel 1 (VIN1) provides lower conduction resistance to support 2 A continuous current capability. The current rating of another channel (VIN2) is 1.5 A. It is an ideal solution for a power system with an internal back up power source.

The GLF4002 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 GLF4002 automatically select the higher input voltage source out of two input DC power supplies.

The GLF4002 prevents cross conduction current between two input sources. When VOUT is higher than VIN, the GLF4002 prevents the reverse current from the output to the input, no matter which input supply is applied.

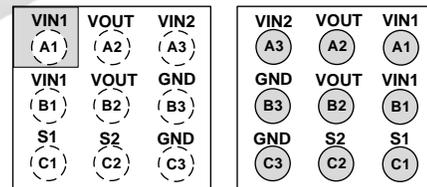
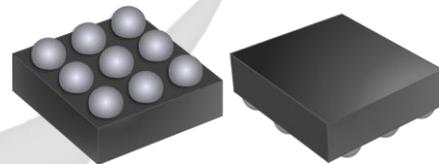
APPLICATIONS

- Smart Devices
- 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, VIN1 = 21 mΩ Typ at 5.5 V_{IN}
 - Channel 2, VIN2 = 38 mΩ Typ at 5.5 V_{IN}
- I_{OUT} Max
 - Channel 1 = 2.0 A
 - Channel 2 = 1.5 A
- Ultra-Low Supply Current at Operation
 - I_Q : 1.1 μA Typ at 5.5 V_{IN}
- Ultra-Low Stand-by Current
 - I_{SD} : 500 nA Typ at 5.5 V_{IN}
- Reverse Current Blocking Protection
- Operating Temperature Range: -40 °C to 85 °C

PACKAGE

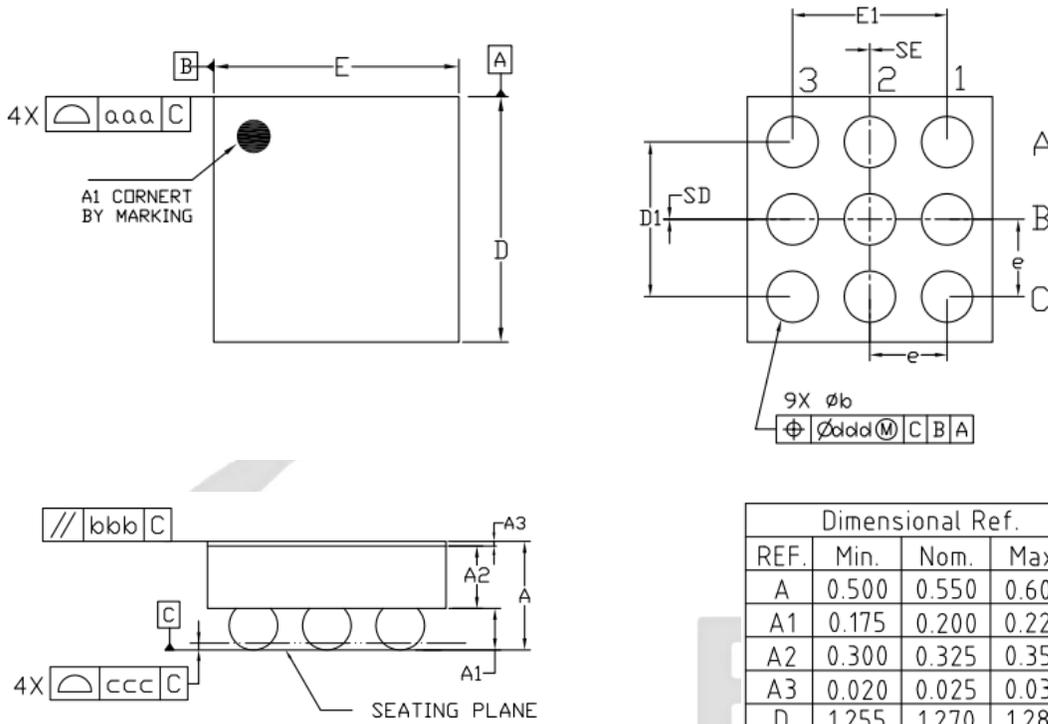


TOP VIEW

BOTTOM VIEW

1.27 mm x 1.27 mm x 0.55 mm WLCSP

PACKAGE OUTLINE

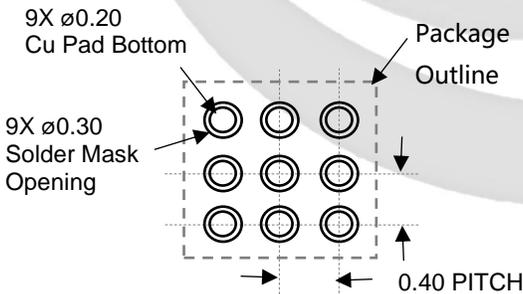


Dimensional Ref.			
REF.	Min.	Nom.	Max.
A	0.500	0.550	0.600
A1	0.175	0.200	0.225
A2	0.300	0.325	0.350
A3	0.020	0.025	0.030
D	1.255	1.270	1.285
E	1.255	1.270	1.285
D1	0.750	0.800	0.850
E1	0.750	0.800	0.850
b	0.215	0.265	0.315
e	0.400 BSC		
SD	0.000 BSC		
SE	0.000 BSC		
Tol. of Form&Position			
aaa	0.10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

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



PACKAGING INFORMATION

Part Number	Package	Pins	Pitch	Top Mark	Moisture Sensitivity Level	Environmental Information
GLF4002-S5G7	1.27 mm x 1.27 mm x 0.55 mm WLCSP	9	0.4mm	GK	MSL1	ROHS+HF

