

## DESCRIPTION

The GLF74138 is a fully integrated power path switch with the automatic and manual selection function.

The EN pin can be used along with the SEL pin to control two integrated main FETs of the GLF74138. By the combination of these two pins, one of input source selection modes is set to provide power to downstream system seamlessly. Each FET of the GLF74138 is conducted bidirectionally when it is turned on and current flows from VOUT to VIN pin and vice versa.

The automatic selection mode chooses a higher input voltage source between two inputs. In the manual selection mode, one of input sources is connected to downstream system.

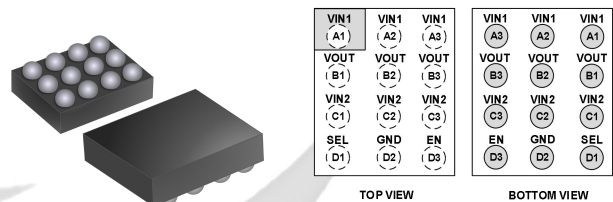
## APPLICATIONS

- Smart Devices
- Subsystem with Backup Power
- IoT Tracking System

## FEATURES

- Two-Input and Single-Output Power Multiplexer Switch
- Automatic and Manual Input Selection Modes
- No Cross Conduction between Two Input Sources
- Bidirectional Current Flow at Conduction State
- Reverse Current Blocking when Disabled
- Supply Voltage Range: 2.0 V to 5.5 V
- $R_{ON} = 20\text{ m}\Omega$  Typ at 5.5 V<sub>IN1</sub> or V<sub>IN2</sub>
- 4.5 A Continuous Output Current Capability Per Channel
- Ultra-Low Supply Current at Operation  
 $I_Q: 4\text{ }\mu\text{A}$  Typ at 5.5 V<sub>IN</sub>
- Ultra-Low Stand-by Current  
 $I_{SD}: 30\text{ nA}$  Typ at 5.5 V<sub>IN</sub>
- Smart Control Pins  
 $I_{EN}$  and  $I_{SEL} : 10\text{ nA}$  Typ at V<sub>EN</sub> or V<sub>SEL</sub> > V<sub>IH</sub>  
 $R_{EN}$  and  $R_{SEL} : 500\text{ k}\Omega$  Typ
- HBM: 6 kV, CDM: 2 kV

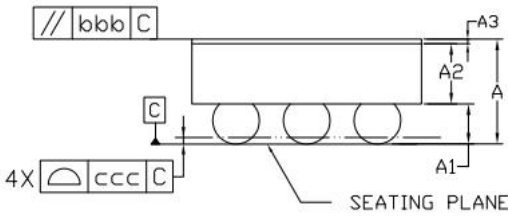
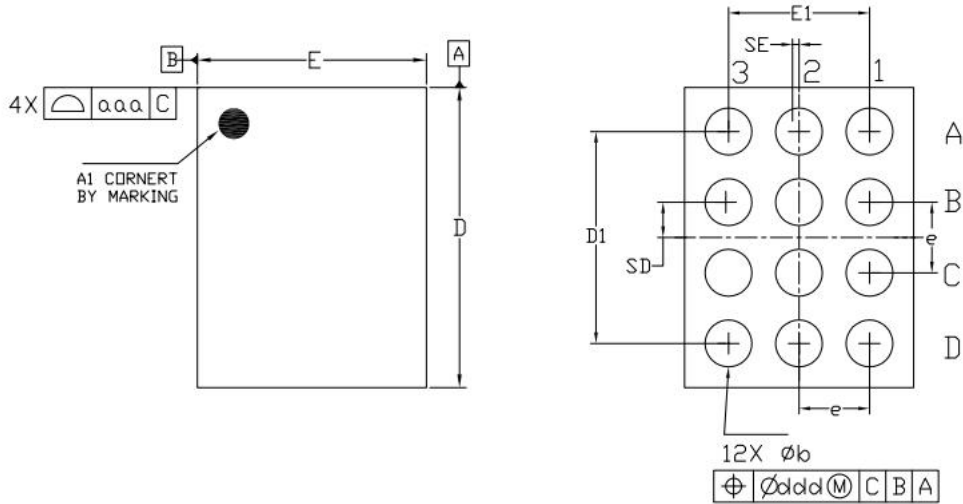
## PACKAGE



## DEVICE INFORMATION

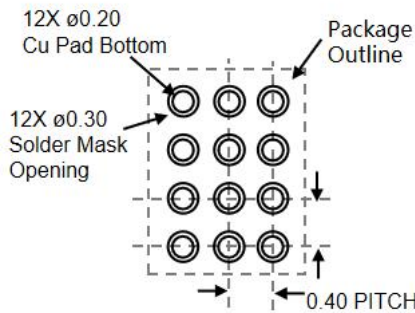
Part Number	$R_{ON}$ at 5.5 V <sub>IN</sub>	Output Current, I <sub>OUT</sub> Per Channel	Ultra-low I <sub>Q</sub> at 5.5 V <sub>IN</sub>
GLF74138	20 m $\Omega$	4.5 A	4 $\mu$ A

**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	1.655	1.670	1.685
E	1.255	1.270	1.285
D1	1.150	1.200	1.250
E1	0.750	0.800	0.850
b	0.215	0.265	0.315
e	0.400 BSC		
SD	0.200 BSC		
SE	0.000 BSC		
Tol. of Form&Position			
aaa	0.10		
bbb	0.10		
ccc	0.05		
ddd	0.05		

**Recommended Footprint**

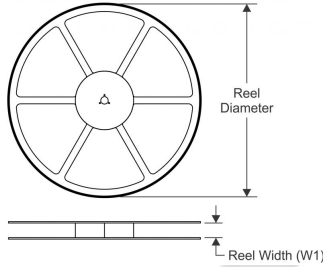


**Notes**

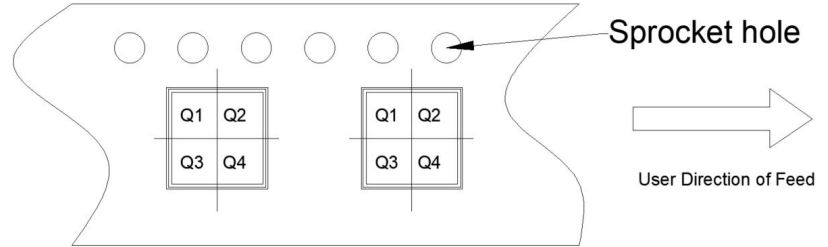
1. ALL DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGRESS)
2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994.
3. A3: BACKSIDE LAMINATION

**TAPE AND REEL INFORMATION**

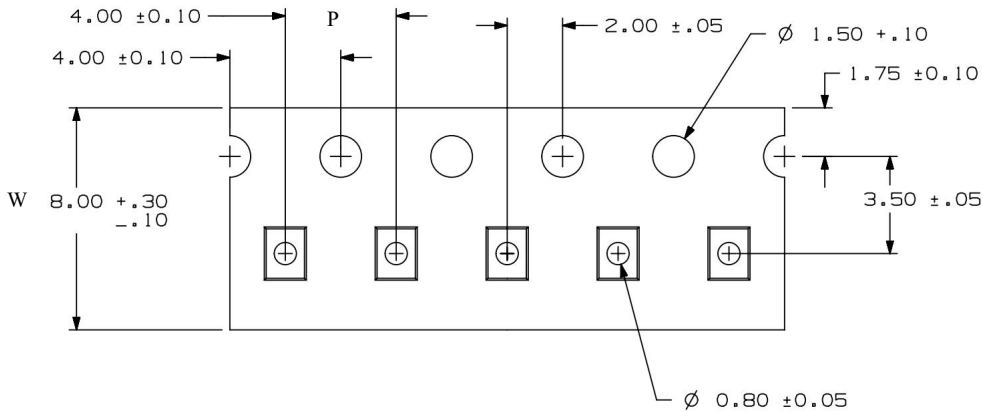
**REEL DIMENSIONS**



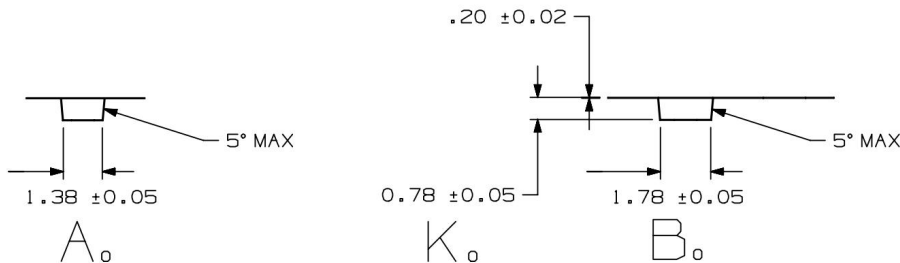
**QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE**



**TAPE DIMENSIONS**



POWER



Device	Package	Pins	SPQ	Reel Diameter (mm)	Reel Width W1	A0	B0	K0	P	W	Pin1
GLF74138	WLCSP	12	3000	180	9	1.38	1.78	0.78	4	8	Q1

Remark:

- A0: Dimension designed to accommodate the component width
- B0: Dimension designed to accommodate the component length
- C0: Dimension designed to accommodate the component thickness
- W: Overall width of the carrier tape
- P: Pitch between successive cavity centers