

DESCRIPTION

The GLF74138 is a fully integrated power path switches 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.

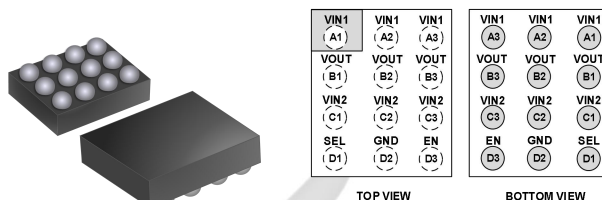
FEATURES

- 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 m Ω Typ at 5.5 V_{IN1} or V_{IN2}
- 4.5 A Continuous Output Current Capability Per Channel
- Ultra-Low Supply Current at Operation
I_Q: 4 μ A Typ at 5.5 V_{IN}
- Ultra-Low Stand-by Current
I_{SD}: 30 nA Typ at 5.5 V_{IN}
- Smart Control Pins
I_{EN} and I_{SEL}: 10 nA Typ at V_{EN} or V_{SEL} > V_{IH}
R_{EN} and R_{SEL}: 500 k Ω Typ
- HBM: 6 kV, CDM: 2 kV

APPLICATIONS

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

PACKAGE

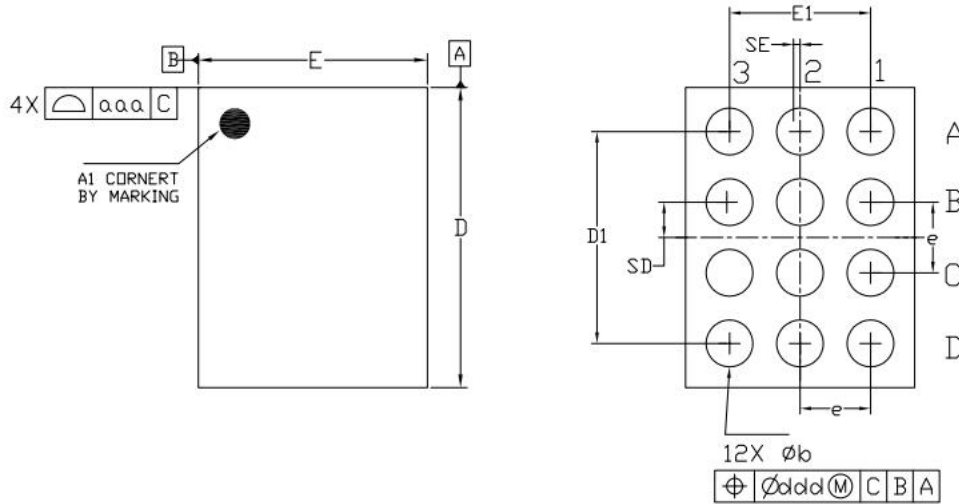


1.27 mm x 1.67 mm x 0.55 mm, WLCSP
0.4 mm pitch

DEVICE INFORMATION

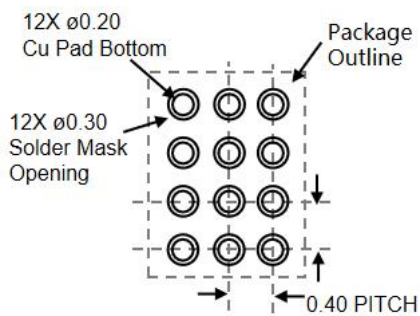
Part Number	Top Mark	R_{ON} at 5.5 V _{IN}	Output Current, I _{OUT} Per Channel	Ultra-low I _Q at 5.5 V _{IN}	Output Discharge	Status
GLF74136	TBD	20 m Ω	4.5 A	4 μ A	70 Ω	On request
GLF74138	EN	20 m Ω	4.5 A	4 μ A	NA	Released

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

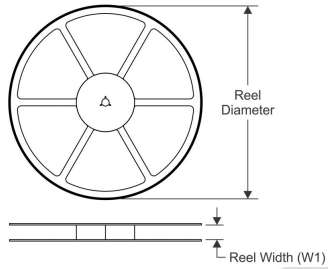


Notes

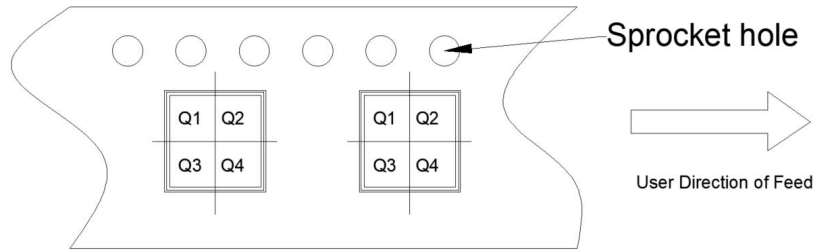
1. ALL DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES)
2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994.
3. A3: BACKSIDE LAMINATION

TAPE AND REEL INFORMATION

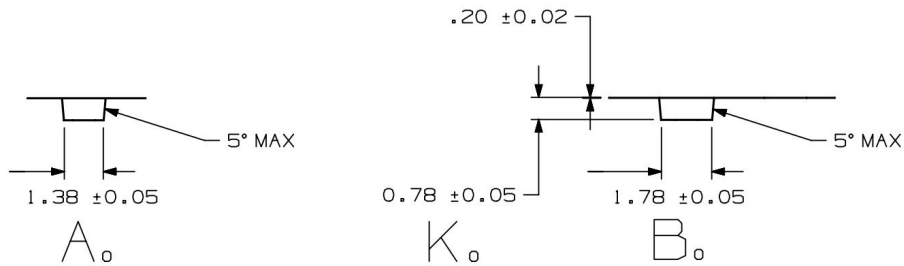
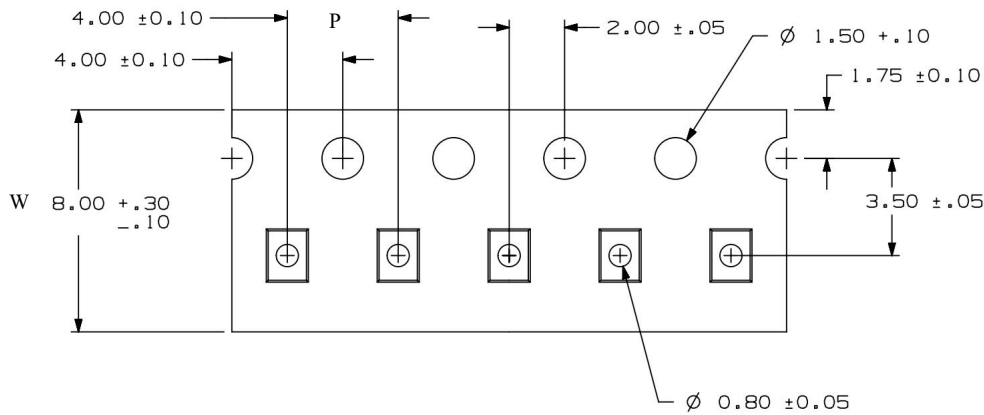
REEL DIMENSIONS



QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE



TAPE DIMENSIONS



Device	Package	Pins	SPQ	Reel Diameter (mm)	Reel Width W1	A0	B0	K0	P	W	Pin1
GLF74136	WLCSP	12	3000	180	9	1.38	1.78	0.78	4	8	Q1
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