

DESCRIPTION

The GLF74139 is a fully integrated power path switch with the automatic and manual selection function. The GLF74139 offers an industry leading true reverse current blocking (TRCB) function to protect input sources when the VOUT increase higher than VIN abnormally.

The EN pin can be used along with the SEL pin to control two integrated main FETs of the GLF74139. By the combination of these two pins, one of input source selection modes is set to provide power to downstream system seamlessly.

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.

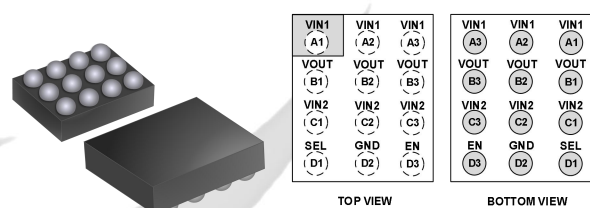
FEATURES

- Two-Input and Single-Output Power Multiplexer Switch
- Automatic and Manual Input Selection Modes
- True Reverse Current Blocking on Each Channel
- No Cross Conduction between Two Input Sources
- 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

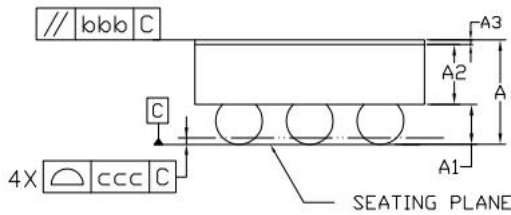
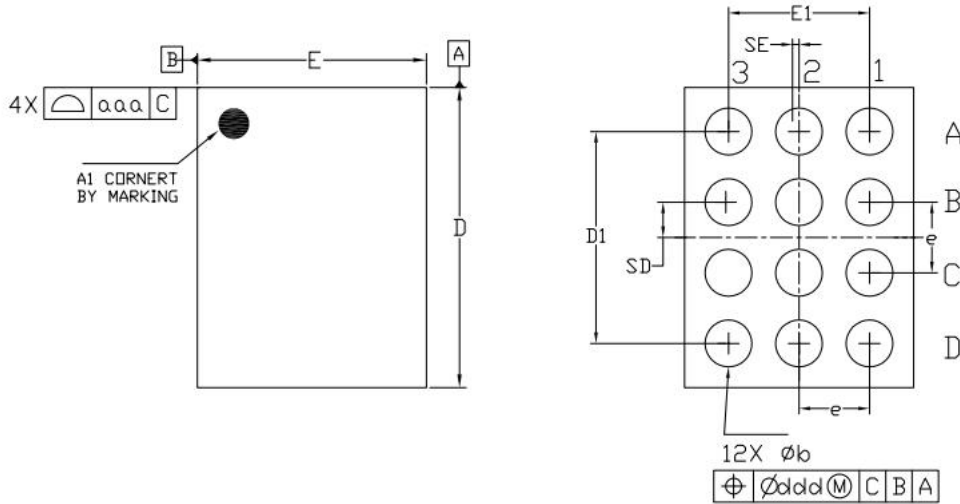


1.27 mm x 1.67 mm x 0.55 mm, WLCSP
0.4 mm pitch

DEVICE INFORMATION

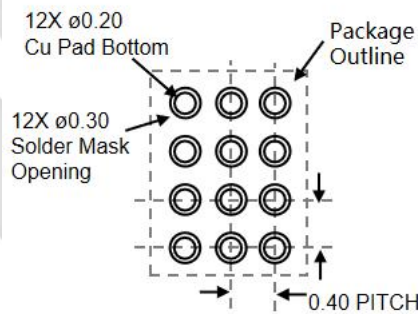
Part Number	Top Mark	R _{ON} at 5.5 V _{IN}	Output Current, I _{OUT} Per Channel	Ultra-low I _Q at 5.5 V _{IN}	Output Discharge	Status
GLF74137	TBD	20 m Ω	4.5 A	4 μ A	70 Ω	On request
GLF74139	EN	20 m Ω	4.5 A	4 μ A	NA	Released

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

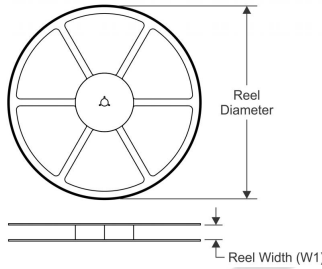


Notes

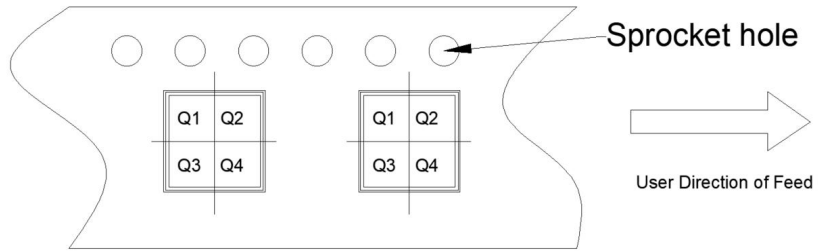
1. ALL DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGRESS)
2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994.
3. A3: BACKSIDE LAMINATION

TAPE AND REEL INFORMATION

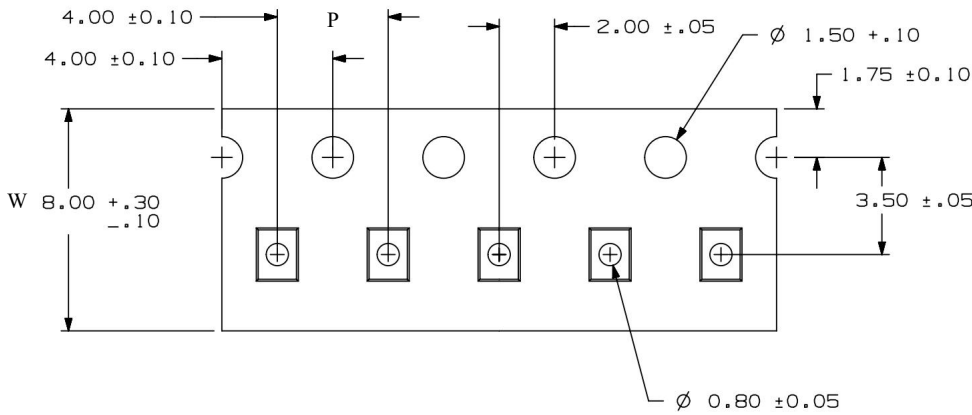
REEL DIMENSIONS



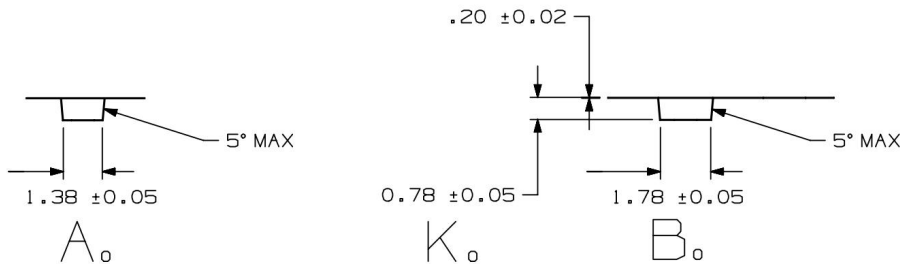
QUADRANT ASSIGNMENTS PIN 1 ORIENTATION TAPE



TAPE DIMENSIONS



POWER



Device	Package	Pins	SPQ	Reel Diameter (mm)	Reel Width W1	A0	B0	K0	P	W	Pin1
GLF74137	WLCSP	12	3000	180	9	1.38	1.78	0.78	4	8	Q1
GLF74139	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