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FPF3488 SIDO Over-Voltage Protection Load Switch

Features

- Single Input Dual Output (SIDO) Switch
 - V_{BUS} to V_{OUT} Path
 - V_{BUS} to SYS Path
- Surge Protection under IEC 61000-4-5
 - V_{BUS} : ± 100 V
- Input Voltage Range
 - V_{BUS} : 2.7 V ~ 13.5 V
- Max. Continuous Current Capability
 - V_{OUT} Path: 3.5 A
 - SYS Path: 6 A
- Ultra Low On-Resistance
 - V_{OUT} Path: Typ. 28 m Ω
 - SYS Path: Typ. 33 m Ω
- Over-Voltage Protection (OVP)
 - V_{OUT} Path: 13.9 V ± 400 mV
 - SYS Path: 5.25 V ± 250 mV
- Always ON LDO Output POK for V_{BUS} Detection and System Power Up without Battery
- Active LOW Control for V_{BUS} to V_{OUT} Path
- Active HIGH Control for V_{BUS} to SYS Path
- Active HIGH Control for Device Shutdown
- CMOS output FLAG for V_{BUS} to SYS Path
- RCB for V_{BUS} to SYS Path
- Over-Temperature Protection (OTP)

Description

The FPF3488 features a Single Input Dual Output (SIDO) power switch, which offers surge protection and Over-Voltage Protection (OVP), to protect downstream components and enhancing overall system robustness.

Channel one (V_{BUS} to V_{OUT}) is an active-low, 28 V/3.5 A rated, power MOSFET switch with an internal clamp supporting ± 100 V surge protection, fixed OVP at 13.9 V (± 400 mV). Channel two (V_{BUS} to SYS) is a active-high, 6 V/6 A rated, power MOSFET, fixed OVP at 5.25 V (± 250 mV) and Reverse Current Blocking (RCB) during its OFF State.

POK is paired with always ON LDO to power downstream devices when V_{BUS} is greater than 2.7 V, regardless of OVLO, EN1 and EN2 State. This provides system power supply without battery.

The FPF3488 is available in a 28-bump, 1.67 mm x 2.96 mm Wafer-Level Chip-Scale Package (WL-CSP) with 0.4 mm pitch.

Applications

- Mobile Handsets and Tablets
- Wearable Devices

Additional Information

For the full datasheet, please contact a Fairchild Sales Representative.

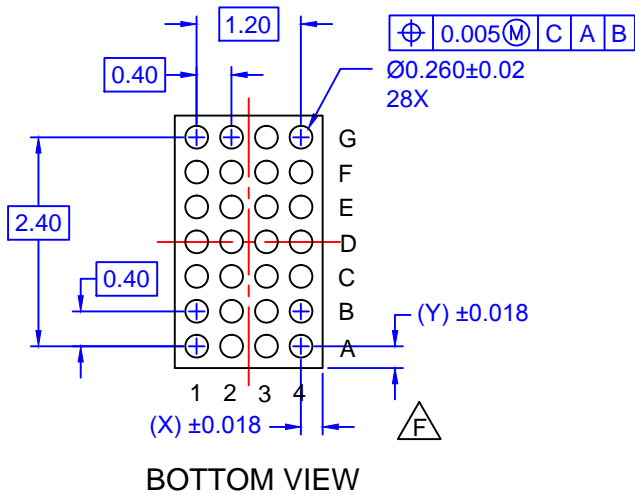
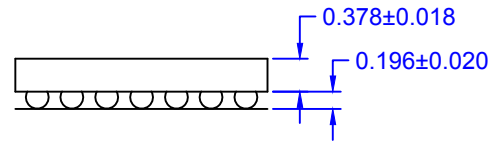
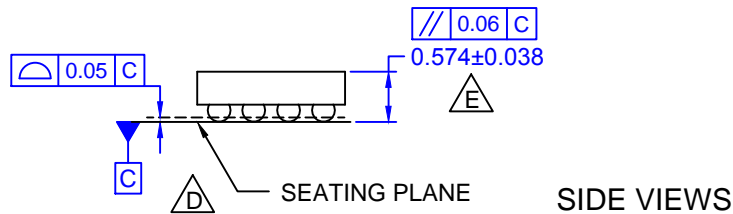
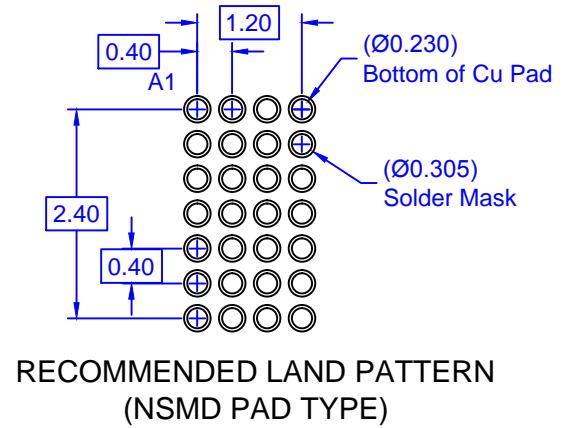
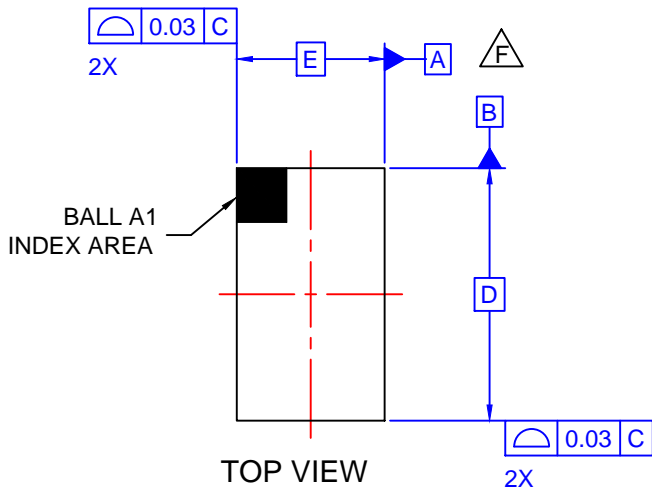
Ordering Information

Part Number	Operating Temperature Range	Top Mark	Package	Packing Method
FPF3488UCX	-40°C – +85°C	VE	28-Ball, 0.4 mm Pitch WLCSP	Tape & Reel

Product-Specific Dimensions

This table applies to the WLCSP package dimensions on the following page.

D	E	X	Y
2960 μ m ± 30 μ m	1670 μ m ± 30 μ m	235 μ m ± 18 μ m	280 μ m ± 18 μ m



NOTES

- A. NO JEDEC REGISTRATION APPLIES.
- B. DIMENSIONS ARE IN MILLIMETERS.
- C. DIMENSIONS AND TOLERANCE PER ASMEY14.5M, 2009.
- D. DATUM C IS DEFINED BY THE SPHERICAL CROWNS OF THE BALLS.
- E. PACKAGE NOMINAL HEIGHT IS 574 ± 38 MICRONS (536-612 MICRONS).
- F. FOR DIMENSIONS D, E, X, AND Y SEE PRODUCT DATASHEET.
- G. DRAWING FILENAME: MKT-UC028AB REV1.





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No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.
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