



LIMITED DATASHEET

Email Analog.Switch@fairchildsemi.com
to request the full datasheet.



FPF2496 — IntelliMAX™ 28 V Over-Voltage, Over-Current Protection Load Switch with Adjustable Current-Limit Control

FPF2496 IntelliMAX™ 28 V, Over-Voltage, Over-Current Protection Load Switch with Adjustable Current-Limit Control

Features

- V_{IN} : 3.5 V~5.5 V
- 28 V Absolute Ratings at V_{IN}
- Current Capability: 2.5 A
- Adjustable Current Limit: (Typ.) 0.1 A~2.5 A with 10% Accuracy
- R_{ON} : Maximum 100 m Ω at 5 V_{IN} and 1A I_{OUT}
- Input OVP: Min.=5.6 V, Typ.=5.8 V, Max.=6 V
- Output Discharge During Off State
- Open-Drain OVP on FLAGB
- Thermal Shutdown
- Under-Voltage Lockout (UVLO)
- True Reverse-Current Blocking (TRCB)
- Logic CMOS IO Meets JESD76 Standard for GPIO Interface and Related Power Supply Requirements
- ESD Protected:
 - Human Body Model: >5.0 kV
 - Charged Device Model: >2.5 kV
 - IEC 61000-4-2 Air Discharge: >15 kV
 - IEC 61000-4-2 Contact Discharge: >8 kV

Description

The FPF2496 advanced load-management switch targets applications requiring a highly integrated solution. It disconnects loads powered from the DC power rail (<6 V) with stringent off-state current targets and high load capacitances (<100 μ F). The FPF2496 consists of a slew-rate controlled low-impedance MOSFET switch (100 m Ω maximum) and integrated analog features. The slew-rate controlled turn-on characteristic prevents inrush current and the resulting excessive voltage droop on power rails. FPF2496 has over-voltage and over-temperature protection.

The FPF2496 has a True Reverse-Current Blocking (TRCB) function that obstructs unwanted reverse current from V_{OUT} to V_{IN} during ON and OFF states. The exceptionally low off-state current drain (<2 μ A maximum) facilitates compliance with standby power requirements. The input voltage range operates from 3.5 V to 5.5 V_{DC} to support a wide range of applications in consumer, optical, medical, storage, portable, and industrial-device power management systems. Switch control is managed by a logic input (active LOW) capable of interfacing directly with low-voltage control signal / General-Purpose Input / Output (GPIO) without an external pull-down resistor.

The device is packaged in advanced, fully “green” compliant, 1.21 mm x 1.21 mm, Wafer-Level Chip-Scale Package (WLCSP).

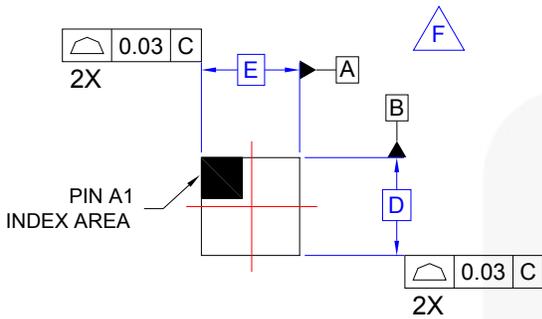
Applications

- Smart Phones, Tablet PCs
- Storage, DSLR, and Portable Devices

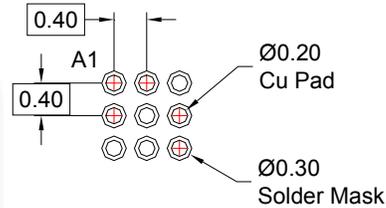
Ordering Information

Part Number	Operating Temperature Range	Package	Top Mark
FPF2496UCX	-40 to 85°C	1.21 mm x 1.21 mm, Wafer-Level Chip-Scale Package (WLCSP)	TJ

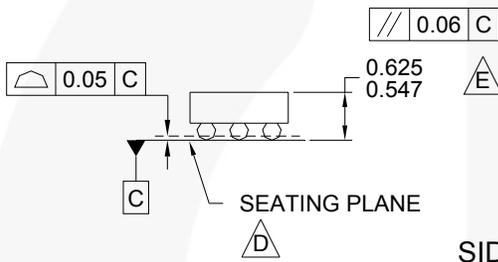
Physical Dimensions



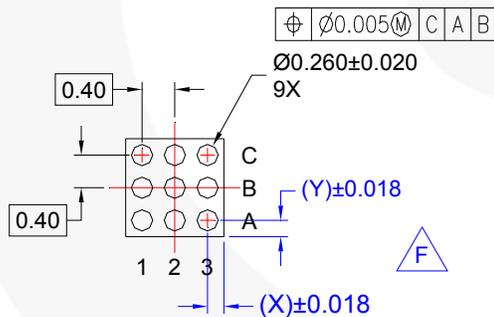
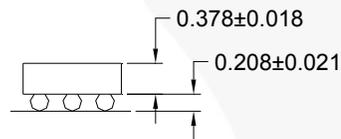
TOP VIEW



LAND PATTERN RECOMMENDATION
(NSMD PAD TYPE)



SIDE VIEWS



BOTTOM VIEW

NOTES:

- A. NO JEDEC REGISTRATION APPLIES.
- B. DIMENSIONS ARE IN MILLIMETERS.
- C. DIMENSIONS AND TOLERANCE PER ASMEY14.5M, 1994.
- D. DATUM C IS DEFINED BY THE SPHERICAL CROWNS OF THE BALLS.
- E. PACKAGE NOMINAL HEIGHT IS 586 MICRONS ±39 MICRONS (547-625 MICRONS).
- F. FOR DIMENSIONS D, E, X, AND Y SEE PRODUCT DATASHEET.
- G. DRAWING FILNAME: MKT-UC009ABrev2

Product-Specific Dimensions

Product	D	E	X	Y
FPF2496	1210 µm ±30 µm	1210 µm ±30 µm	205 µm	205 µm

Package drawings are provided as a service to customers considering Fairchild components. Drawings may change in any manner without notice. Please note the revision and/or date on the drawing and contact a Fairchild Semiconductor representative to verify or obtain the most recent revision. Package specifications do not expand the terms of Fairchild's worldwide terms and conditions, specifically the warranty therein, which covers Fairchild products.

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| CorePLUS™ | Green FPS™ | QFET® | TinyLogic® |
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| FPST™ | | | |

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Definition of Terms

Datasheet Identification	Product Status	Definition
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Preliminary	First Production	Datasheet contains preliminary data; supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
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