

FSA3000 — Two-Port, High-Speed, MHL™ Switch

Features

- Low On Capacitance: 2.7pF/4.1pF MHL/USB (Typical)
- Low Power Consumption: 30µA Maximum
- MHL Data Rate: 4.92Gbps ($f_{3dB} = 2.46\text{GHz}$)
- Packaged in 10-Lead MicroPak™
- IEC 610002-4 Level-4 ESD Tolerance
- Over-Voltage Tolerance (OVT) on all USB and MHL Ports; Up to 5.25V without External Components

Applications

- Cell Phones and Digital Cameras

IMPORTANT NOTE:

For additional performance information, please contact interface@fairchildsemi.com.

Description

The FSA3000 is a bi-directional, low-power, two-port, high-speed, USB2.0 and video data switch that supports the Mobile High-Definition Link (MHL) Specification Rev. 1.0. Configured as a double-pole, double-throw (DPDT) switch for data, FSA3000 is optimized for USB2.0 and MHL data sources.

The FSA3000 contains circuitry on the switch I/O pins that allows the device to withstand an over-voltage condition in applications where the V_{CC} supply is powered off ($V_{CC}=0$). The FSA3000 minimizes current consumption even when the voltage applied to the control pins is lower than the supply voltage (V_{CC}). This feature is especially valuable in mobile applications, such as cell phones, allowing direct interface with the general-purpose I/Os of the baseband processor. Other applications include switching and connector sharing in portable cell phones, digital cameras, and notebook computers.

Ordering Information

Part Number	Top Mark	Operating Temperature Range	Package
FSA3000L10X	LK	-40 to +85°C	10-Lead, MicroPak™ 1.6 x 2.1mm JEDEC MO255B

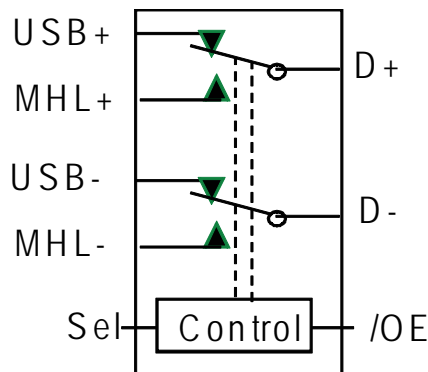


Figure 1. Analog Symbol

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Physical Dimensions

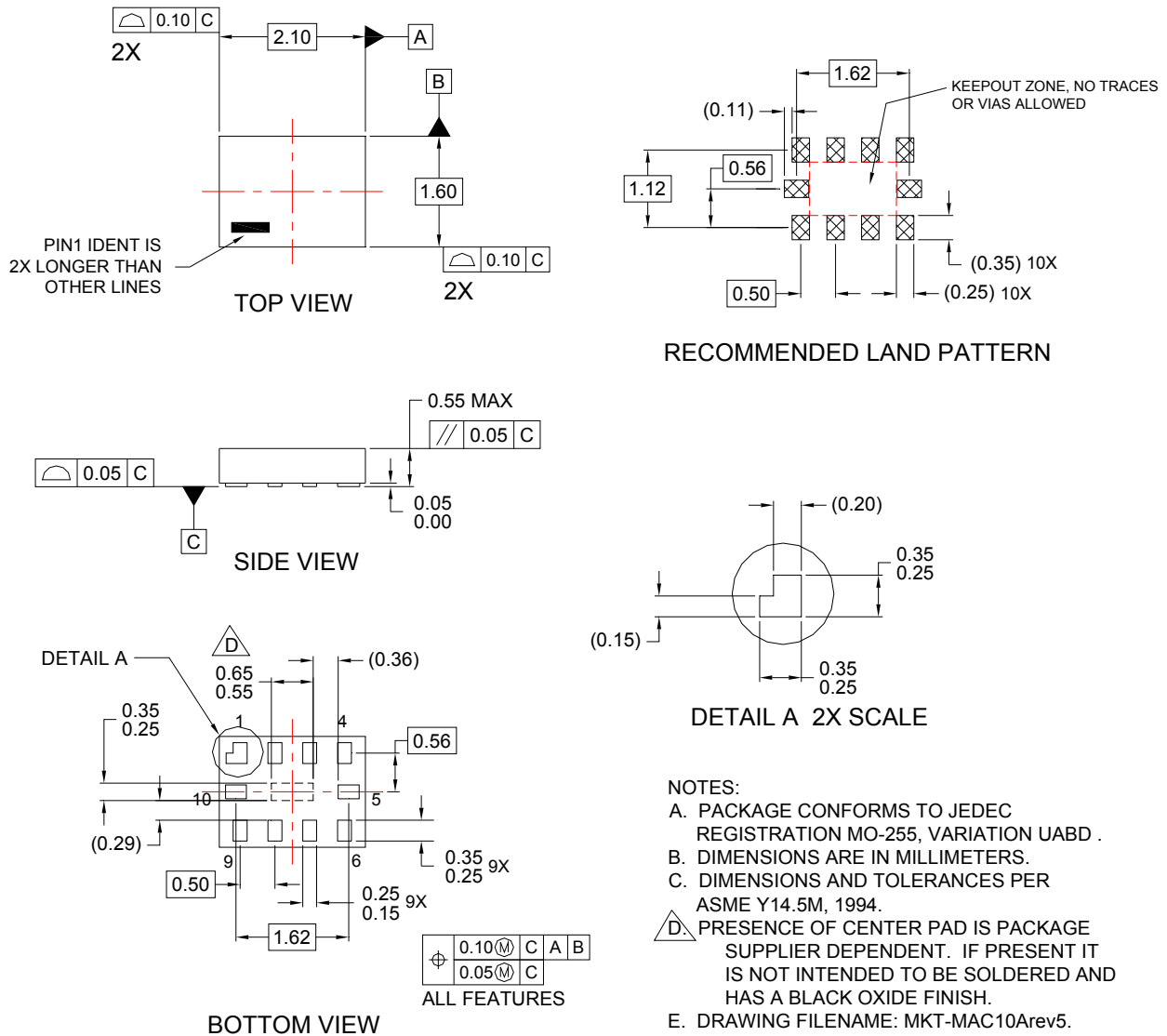


Figure 18. 10-Lead, MicroPak™ 1.6 x 2.1mm JEDEC MO255B

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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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