

FSA223 — USB2.0 High-Speed (480Mbps) and Audio Switches with Negative Signal Capability

Features

- HS-USB: 4Ω Typical On Resistance
- HS-USB: 4.5pF Typical On Capacitance
- Audio: 3Ω Typical On Resistance
- -3db Bandwidth: > 720MHz
- Low Power Consumption
- Power-off Protection on Common D+/R, D-/L Ports
- Automatically Detects V_{CC} for Switch Path Selection

Applications

- Cell Phone, PDA, Digital Camera, and Notebook
- LCD Monitor, TV, and Set-Top Box

Related Resources

- Please refer to tape and reel specifications on www.fairchildsemi.com; <http://www.fairchildsemi.com/packaging>.

Description

The FSA223 is a Double-Pole, Double Throw (DPDT) multiplexer that combines a low-distortion audio and a USB2.0 High-Speed (HS) switch path. This configuration enables audio and USB data to share a common connector port. The architecture is designed to allow both audio and USB signals to swing below ground. This means a common USB and headphone jack can be used for personal media players and portable peripheral devices.

Since USB2.0 is an industry standard for shared data-path in portable devices, the FSA223 also incorporates a V_{CC} detection capability. The FSA223 includes a power-off feature to minimize current consumption when V_{CC} is not present. This power-off circuitry is available for the common D+/R, D-/L ports only. Typical applications involve switching in portables and consumer applications, such as cell phones, digital cameras, and notebooks with hubs or controllers.

IMPORTANT NOTE:

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

Ordering Information

Part Number	Package Number	Top Mark	Pb-Free	Package Description
FSA223L10X	MAC010A	GN	Yes	10-Lead MicroPak™, JEDEC MO-255, 1.6 x 2.1mm
FSA223MUX	MUA010A	FSA223	Yes	10-Lead MSOP, JEDEC MO-187, 3.0mm Wide
FSA223UMX	MLP010A	GP	Yes	10-Lead Quad, Ultrathin MLP, 1.4 x 1.8mm

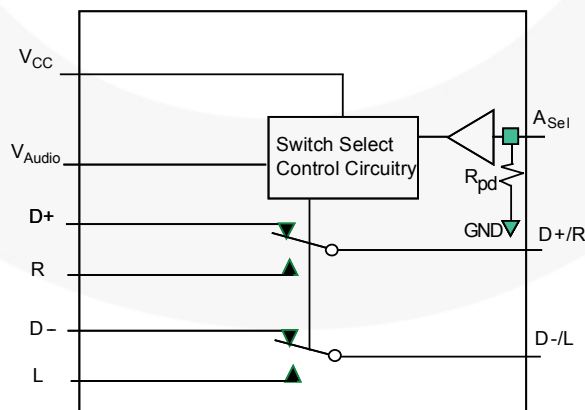



Figure 1. FSA223 Analog Symbol



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Definition of Terms

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Preliminary	First Production	This 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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