



September 2007

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

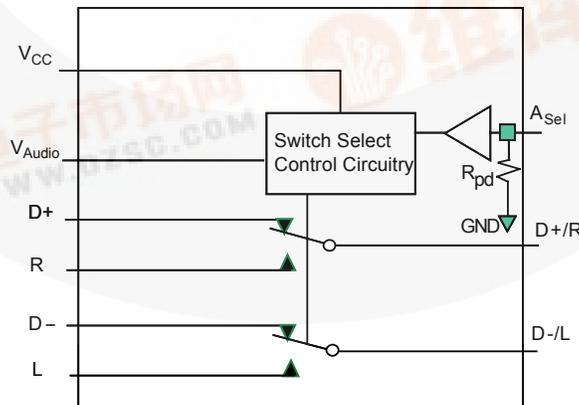


Figure 1. FSA223 Analog Symbol



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Definition of Terms

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Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
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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