FAIRCHILD

SEMICONDUCTOR®

June 2007

FSA2271 / FSA2271T
Low-Voltage, Dual-SPDT (0.4Ω) Analog Switch with Negative Swing Audio Capability

Features

- 0.4Ω Typical On Resistance for +3.0V Supply
- 0.25Ω Maximum R_{ON} Flatness for +3.0V Supply
- -3db Bandwidth: > 50MHz
- Low I_{CCT} Current Over Expanded Control Input Range
- Packaged in Pb-free 10-Lead UMLP
- Power-off Protection on Common Ports
- Broad V_{CC} Operating Range: 1.65 to 4.3V
- Noise Immunity Termination Resistors - FSA2271T
- ESD JEDEC: JESD22-A114 Human Body Model:
  − Power to GND: 16KV
  − I/O to GND: 10kV
  − All other Pins: 7kV
- ESD JEDEC: JESD22-A101 Charged Device Model:
  − CDM: 2kV

Applications

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

Description

The FSA2271 is a high-performance, dual - single pole double throw (SPDT) analog switch with negative swing audio capability. It features ultra-low R_{ON} of 0.4Ω (typical) at 3.0V V_{CC}. The FSA2271 operates over a wide V_{CC} range of 1.65V to 4.3V and is fabricated with sub-micron CMOS technology to achieve fast switching speeds. Designed for break-before-make operation, the FSA2271 select input is TTL level compatible.

The FSA2271 features very low quiescent current, even when the control voltage is lower than the V_{CC} supply. This feature is optimized for the mobile handset applications, allowing direct interface with baseband processor general-purpose I/Os with minimal battery consumption.

The FSA2271T includes termination resistors that improve noise immunity during overshoot excursions, "pop-minimization," or off-isolation coupling.

IMPORTANT NOTE:

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

Ordering Information

Part Number	Pb-Free	Termination Resistors	Operating Temperature Range	Package
FSA2271UMX (Preliminary)	Yes	No	-40°C to 85°C	10-Lead Quad Ultrathin Molded Leadless Package, 1.4 x 1.8mm, 0.4mm pitch
FSA2271TUMX	Yes	Yes	-40°C to 85°C	10-Lead Quad Ultrathin Molded Leadless Package, 1.4 x 1.8mm, 0.4mm pitch

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FACT Quiet Series™	MicroFET™	Quiet Series™	TINYOPTO™
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FAST®	Motion-SPM™	SMART START™	TinyPWM™
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FRFET®	PDP-SPM™	SuperFET™	UHC®
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PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
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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Rev. I29