FAIRCHILD
SEMICONDUCTOR®

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FSA2270T Low-Voltage, Dual-SPDT (0.4Ω) Analog Switch with Negative Swing Audio Capability

Features

- 0.4Ω Typical On Resistance (R_{ON}) 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 10-Lead UMLP
- Power-Off Protection on Common Ports
- Broad V_{CC} Operating Range: 1.65 to 4.3V
- Noise Immunity Termination Resistors
- Low Electrostatic Discharge (ESD)
  - Human Body Model (JEDEC: JESD22-A114)
    - Power to GND   16kV
    - I/O to GND   11kV
    - All other pins   8kV
  - Charged Device Model (JEDEC: JESD22-A101)

Applications

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

Description

The FSA2270T is a high-performance, dual Single-Pole Double-Throw (SPDT) analog switch with negative swing audio capability. The FSA2270T features ultra-low R_{ON} of 0.4Ω (typical) at 3.0V V_{CC}. The FSA2270T operates over a wide V_{CC} range of 1.65V to 4.3V, is fabricated with sub-micron CMOS technology to achieve fast switching speeds, and is designed for break-before-make operation. The select input is TTL-level compatible.

The FSA2270T features very low quiescent current even when the control voltage is lower than the V_{CC} supply. This feature suits mobile handset applications by allowing direct interface with baseband processor general-purpose I/Os with minimal battery consumption.

The FSA2270T includes termination resistors that improve noise immunity during overshoot excursions, off-isolation coupling, or "pop-minimization."

IMPORTANT NOTE:

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

Ordering Information

Part Number	Top Mark	🌿 Eco Status	Package Description
FSA2270TUMX	HK	Green	10-Lead, Quad Ultrathin Molded Leadless Package (UMLP), 1.4 x 1.8mm, 0.4mm pitch

🌿 *For Fairchild's definition of "green" Eco Status, please visit: http://www.fairchildsemi.com/company/green/rohs_green.html.*

Analog Symbol

Figure 1. FSA2270T

FSA2270T — Low-Voltage, Dual-SPDT (0.4Ω) Analog Switch with Negative Swing Audio Capability

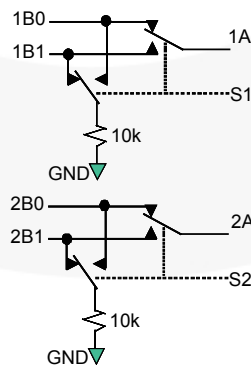## TRADEMARKS

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PRODUCT STATUS DEFINITIONS

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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