

October 2007

FSA6157 / FSA6157T Low- R_{ON} SPDT (0.8 Ω) Negative-Swing Audio or Video Switch

Features

- 0.8Ω Typical On Resistance (R_{ON}) for +2.7V Supply
- 0.45Ω Maximum R_{ON} Flatness for +2.7V Supply
- -3db Bandwidth: > 50MHz
- Low I_{CCT} Current Over an Expanded Control Input Range
- Packaged in Pb-free 6-Lead MicroPak™ (1.0 x 1.4mm)
- Power-Off Protection on All I/O Ports
- Broad V_{CC} Operating Range: 1.65 to 4.3V
- HBM JEDEC: JESD22-A114
 - I/O to GND: 12kVPower to GND: 16kV
- Noise Reduction Termination Resistors in FSA6157T

Applications

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

Description

The FSA6157 is a high-performance, Single Pole Double Throw (SPDT) analog switch that features a low R_{ON} of 0.8Ω (typical) at 2.7V supply. The FSA6157 operates over a wide V_{CC} range of 1.65V to 4.3V and is designed for break-before-make operation. The select input is TTL-level compatible.

The FSA6157 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 FSA6157T includes termination resistors to improve the susceptibility to noise 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	Package Description
FSA6157L6X	GT	6-Lead, MicroPak™, 1.0mm wide, JEDEC MO-255
FSA6157TL6X (Preliminary)		6-Lead, MicroPak™, 1.0mm wide, JEDEC MO-255

All packages are lead free per JEDEC: J-STD-020B standard.

Analog Symbols

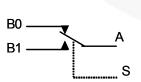


Figure 1. FSA6157

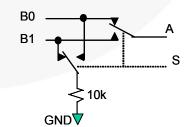


Figure 2. FSA6157T (with Noise Termination Resistors)

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PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
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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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