

FSA2268 / FSA2268T Low-Voltage Dual-SPDT (0.4Ω) Analog Switch with 16kV ESD

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 an Expanded Control Input Range
- Packaged in Pb-free 10-Lead μ MLP (1.4 x 1.8mm)
- Power-Off Protection on Common Ports
- Broad V_{CC} Operating Range: 1.65 to 4.3V
- HBM JEDEC: JESD22-A114
 - I/O to GND: 13.5kV
 - Power to GND: 16.0kV
- Noise Immunity Termination Resistors in FSA2268T

Applications

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

Description

The FSA2268 is a high-performance, dual Single Pole Double Throw (SPDT) analog switch that features ultra-low R_{ON} of 0.4Ω (typical) at 3.0V V_{CC} . The FSA2268 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 FSA2268 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 FSA2268T 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	Package Number	Top Mark	Pb-Free	Package Description
FSA2268UMX	MLP010A	GF	Yes	10-Lead, Quad Ultrathin Molded Leadless Package (UMLP), 1.4 x 1.8mm, 0.4mm pitch
FSA2268TUMX	MLP010A	GH	Yes	10-Lead, Quad Ultrathin Molded Leadless Package (UMLP), 1.4 x 1.8mm, 0.4mm pitch

Analog Symbols

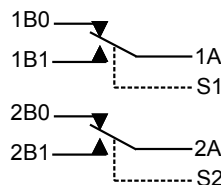


Figure 1. FSA2268

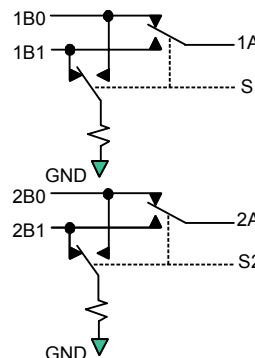



Figure 2. FSA2268T (with Noise Termination Resistors)



TRADEMARKS

The following are registered and unregistered trademarks Fairchild Semiconductor owns or is authorized to use and is not intended to be an exhaustive list of all such trademarks.

ACE [®]	HiSeC [™]	Programmable Active Droop [™]	TinyLogic [®]
Across the board. Around the world. [™]	<i>i-Lo</i> [™]	QFET [®]	TINYOPTO [™]
ActiveArray [™]	ImpliedDisconnect [™]	QS [™]	TinyPower [™]
Bottomless [™]	IntelliMAX [™]	QT Optoelectronics [™]	TinyWire [™]
Build it Now [™]	ISOPLANAR [™]	Quiet Series [™]	TruTranslation [™]
CoolFET [™]	MICROCOUPLER [™]	RapidConfigure [™]	μSerDes [™]
CROSSVOLT [™]	MicroPak [™]	RapidConnect [™]	UHC [®]
CTL [™]	MICROWIRE [™]	ScalarPump [™]	UniFET [™]
Current Transfer Logic [™]	MSX [™]	SMART START [™]	VCX [™]
DOME [™]	MSXPro [™]	SPM [®]	Wire [™]
E ² CMOS [™]	OCX [™]	STEALTH [™]	
EcoSPARK [®]	OCXPro [™]	SuperFET [™]	
EnSigna [™]	OPTOLOGIC [®]	SuperSOT [™] -3	
FACT Quiet Series [™]	OPTOPLANAR [®]	SuperSOT [™] -6	
FACT [®]	PACMAN [™]	SuperSOT [™] -8	
FAST [®]	POP [™]	SyncFET [™]	
FASTr [™]	Power220 [®]	TCM [™]	
FPS [™]	Power247 [®]	The Power Franchise [®]	
FRFET [®]	PowerEdge [™]	 ™	
GlobalOptoisolator [™]	PowerSaver [™]	TinyBoost [™]	
GTO [™]	PowerTrench [®]	TinyBuck [™]	

DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS. THESE SPECIFICATIONS DO NOT EXPAND THE TERMS OF FAIRCHILD'S WORLDWIDE TERMS AND CONDITIONS, SPECIFICALLY THE WARRANTY THEREIN, WHICH COVERS THESE PRODUCTS.

LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF FAIRCHILD SEMICONDUCTOR CORPORATION.

As used herein:

- Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
- A critical component in any component of a life support, device, or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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.
No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild Semiconductor. The datasheet is printed for reference information only.

Rev. I24