ANALOG DEVICES

CMOS

Latched 8/16 Channel Analog Multiplexers

ADG526A/ADG527A—SPECIFICATIONS

Dual Supply (V_{DD} = +10.8V to +16.5V, V_{SS} = −10.8V to −16.5V unless otherwise noted.)

	ADG526A ADG527A K Version		ADG526A ADG527A B Version		ADG526A ADG527A T Version			
Parameter	+25°C	−40°C to +85°C	+25°C	−40°C to +85°C	+25°C	−55°C to +125°C	Units	Comments
ANALOG SWITCH								
Analog Signal Range	V	V	V	V	V	V	V min	

Single Supply (V_{DD} = +10.8V to +16.5V, V_{SS} = GND = 0V unless otherwise noted.)

	ADG526A ADG527A K Version	ADG526A ADG527A B Version	ADG526A ADG527A T Version

TIMING DIAGRAMS

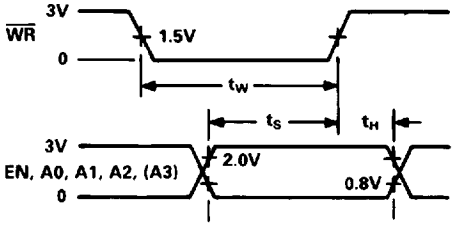


Figure 1.

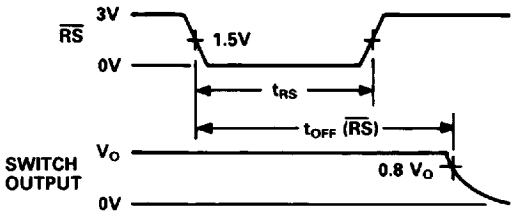


Figure 2.

TRUTH TABLES

A3	A2	A1	A0	EN	$\overline{WR}$	$\overline{RS}$	ON SWITCH
X	X	X	X	X	↓	1	Retains Previous Switch Condition
X	X	X	X	X	X	0	NONE (Address and Enable Latches Cleared)
X	X	X	X	0	0	1	NONE
0	0	0	0	1	0	1	1
0	0	0	1	1	0	1	2
0	0	1	0	1	0	1	3
0	0	1	1	1	0	1	4
0	1	0	0	1	0	1	5
0	1	0	1	1	0	1	6
0	1	1	0	1	0	1	7
0	1	1	1	1	0	1	8
1	0	0	0	1	0	1	9
1	0	0	1	1	0	1	10
1	0	1	0	1	0	1	11
1	0	1	1	1	0	1	12
1	1	0	0	1	0	1	13
1	1	0	1	1	0	1	14
1	1	1	0	1	0	1	15
1	1	1	1	1	0	1	16

X = Don't Care

ADG526A

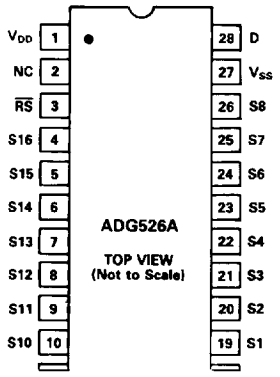
A2	A1	A0	EN	$\overline{WR}$	$\overline{RS}$	ON SWITCH PAIR
X	X	X	X	↓	1	Retains Previous Switch Condition
X	X	X	X	X	0	NONE (Address and Enable Latches Cleared)
X	X	X	0	0	1	NONE
0	0	0	1	0	1	1
0	0	1	1	0	1	2
0	1	0	1	0	1	3
0	1	1	1	0	1	4
1	0	0	1	0	1	5
1	0	1	1	0	1	6
1	1	0	1	0	1	7
1	1	1	1	0	1	8

X = Don't Care

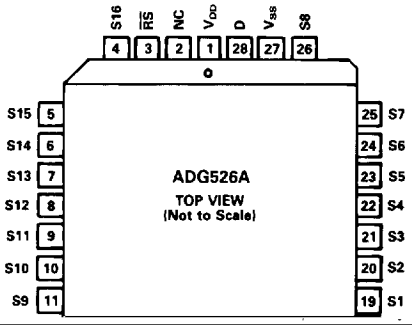
ADG527A

PIN CONFIGURATIONS

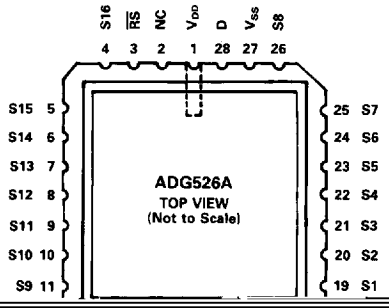
DIP, SOIC



LCCC

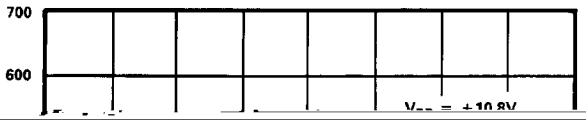


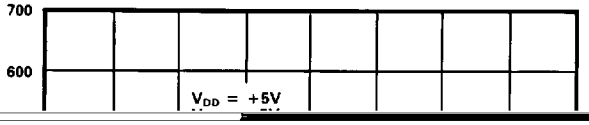
PLCC



Typical Performance Characteristics

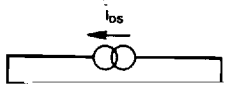
The multiplexers are guaranteed functional with reduced single or dual supplies down to 4.5V.



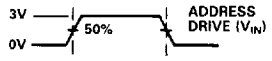


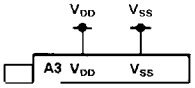
Test Circuits—ADG526A/ADG527A

TEST CIRCUIT 1 R_{ON}

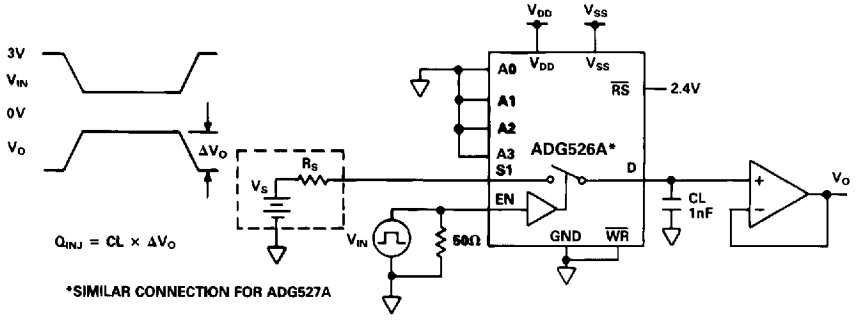


TEST CIRCUIT 6 SWITCHING TIME OF MULTIPLEXER, $t_{TRANSITION}$





TEST CIRCUIT 11 CHARGE INJECTION



C1153a–9–2/88

TERMINOLOGY

R_{ON} Ohmic resistance between terminals D and S

t_{OFF} (EN) Delay time between the 50% and 10% points of the digital input and switch "OFF" condition