

## ADG5412F Family Data Sheet changes

This document highlights the performance changes on the data sheets of the ADG5412F family of Analog Switch and Multiplexers.

There are 7 generics included in this document and they are as follows:

1. ADG5412F/ADG5413F
2. ADG5412BF/ADG5413BF
3. ADG5404F
4. ADG5436F
5. ADG5462F

The tables below show a datasheet specification comparison of the current datasheet specification to the updated version for each generic. The changed specifications are highlighted in red font.

# 1. ADG5412F/ADG5413F SPECIFICATION CHANGES FROM Rev. A to Rev. B

## ±15 V DUAL SUPPLY

$V_{DD} = 15\text{ V} \pm 10\%$ ,  $V_{SS} = -15\text{ V} \pm 10\%$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted.

Parameter	Rev. A			Rev. B			Unit	Test Conditions/Comments
	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C		
LEAKAGE CURRENTS								$V_{DD} = 16.5\text{ V}$ , $V_{SS} = -16.5\text{ V}$
Source Off Leakage, $I_S$ (Off)	±0.1			±0.1			nA typ	$V_S = \pm 10\text{ V}$ , $V_D = \mp 10\text{ V}$ , see Figure 32
Drain Off Leakage, $I_D$ (Off)	±0.5	±4.0	±20	±1.5	±5.0	±21	nA max	$V_S = \pm 10\text{ V}$ , $V_D = \mp 10\text{ V}$ , see Figure 32
	±0.1			±0.1			nA typ	
Channel On Leakage, $I_D$ (On), $I_S$ (On)	±0.5	±4.0	±17	±1.5	±5.0	±18	nA max	$V_S = V_D = \pm 10\text{ V}$ , see Figure 33
	±0.3			±0.3			nA typ	
	±1.0	±1.4	±4	±1.5	±2.0	±4.5	nA max	
Drain Leakage Current, $I_D$ With Overvoltage	±1.2			±2.0			nA typ	$V_{DD} = 16.5\text{ V}$ , $V_{SS} = 16.5\text{ V}$ , $GND = 0\text{ V}$ , $V_S = \pm 55\text{ V}$ , see Figure 36
	±4.0	±11	±45	±8.0	±15	±49	nA max	

## ±20 V DUAL SUPPLY

$V_{DD} = 20\text{ V} \pm 10\%$ ,  $V_{SS} = -20\text{ V} \pm 10\%$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted.

Parameter	Rev. A			Rev. B			Unit	Test Conditions/Comments
	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C		
LEAKAGE CURRENTS								$V_{DD} = 22\text{ V}$ , $V_{SS} = -22\text{ V}$
Source Off Leakage, $I_S$ (Off)	±0.1			±0.1			nA typ	$V_S = \pm 15\text{ V}$ , $V_D = \mp 15\text{ V}$ , see Figure 32
Drain Off Leakage, $I_D$ (Off)	±0.5	±4.0	±20	±1.5	±5.0	±21	nA max	$V_S = \pm 15\text{ V}$ , $V_D = \mp 15\text{ V}$ , see Figure 32
	±0.1			±0.1			nA typ	
Channel On Leakage, $I_D$ (On), $I_S$ (On)	±0.5	±4.0	±17	±1.5	±5.0	±18	nA max	$V_S = V_D = \pm 15\text{ V}$ , see Figure 33
	±0.3			±0.3			nA typ	
	±1.0	±1.4	±4	±1.5	±2.0	±4.5	nA max	

## 12 V SINGLE SUPPLY

$V_{DD} = 12\text{ V} \pm 10\%$ ,  $V_{SS} = 0\text{ V}$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted.

	Rev. A			Rev. B				
Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
LEAKAGE CURRENTS								$V_{DD} = 13.2\text{ V}$ , $V_{SS} = 0\text{ V}$
Source Off Leakage, $I_S$ (Off)	±0.1			±0.1			nA typ	$V_S = 1\text{ V}/10\text{ V}$ , $V_D = 10\text{ V}/1\text{ V}$ , see Figure 32
Drain Off Leakage, $I_D$ (Off)	±0.5 ±0.1	±4.0	±20	±1.5 ±0.1	±5.0	±21	nA max nA typ	$V_S = 1\text{ V}/10\text{ V}$ , $V_D = 10\text{ V}/1\text{ V}$ , see Figure 32
Channel On Leakage, $I_D$ (On), $I_S$ (On)	±0.5 ±0.3	±4.0	±17	±1.5 ±0.3	±5.0	±18	nA max nA typ	$V_S = V_D = 1\text{ V}/10\text{ V}$ , see Figure 33
Drain Leakage Current, $I_D$ With Overvoltage	±1.0 ±1.2	±1.4	±4	±1.5 ±2.0	±2.0	±4.5	nA max nA typ	$V_{DD} = 13.2\text{ V}$ , $V_{SS} = 0\text{ V}$ or floating, $GND = 0\text{ V}$ , $V_S = \pm 55\text{ V}$ , see Figure 36
	±4.0	±11	±45	±8.0	±15	±49	nA max	

## 36 V SINGLE SUPPLY

$V_{DD} = 36\text{ V} \pm 10\%$ ,  $V_{SS} = 0\text{ V}$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted

	Rev. A			Rev. B				
Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
LEAKAGE CURRENTS								$V_{DD} = 39.6\text{ V}$ , $V_{SS} = 0\text{ V}$
Source Off Leakage, $I_S$ (Off)	±0.1			±0.1			nA typ	$V_S = 1\text{ V}/30\text{ V}$ , $V_D = 30\text{ V}/1\text{ V}$ , see Figure 32
Drain Off Leakage, $I_D$ (Off)	±0.5 ±0.1	±4.0	±20	±1.5 ±0.1	±5.0	±21	nA max nA typ	$V_S = 1\text{ V}/30\text{ V}$ , $V_D = 30\text{ V}/1\text{ V}$ , see Figure 32
Channel On Leakage, $I_D$ (On), $I_S$ (On)	±0.5 ±0.3	±4.0	±17	±1.5 ±0.3	±5.0	±18	nA max nA typ	$V_S = V_D = 1\text{ V}/30\text{ V}$ , see Figure 33
Drain Leakage Current, $I_D$ With Overvoltage	±1.0 ±1.2	±1.4	±4	±1.5 ±2.0	±2.0	±4.5	nA max nA typ	$V_{DD} = 39.6\text{ V}$ , $V_{SS} = 0\text{ V}$ or floating, $GND = 0\text{ V}$ , $V_S = +55\text{ V}$ , −40 V, see Figure 36
	±4.0	±11	±45	±8.0	±15	±49	nA max	

## 2. ADG5412BF/ADG5412BF SPECIFICATION CHANGES FROM Rev. A to Rev. B

### ±15 V DUAL SUPPLY

$V_{DD} = 15\text{ V} \pm 10\%$ ,  $V_{SS} = -15\text{ V} \pm 10\%$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted.

Parameter	Rev. A			Rev. B			Unit	Test Conditions/Comments
	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C		
LEAKAGE CURRENTS								
Source Off Leakage, $I_S$ (Off)	±0.1			±0.1			nA typ	$V_{DD} = 16.5\text{ V}$ , $V_{SS} = -16.5\text{ V}$ $V_S = \pm 10\text{ V}$ , $V_D = \mp 10\text{ V}$ , see Figure 33
Drain Off Leakage, $I_D$ (Off)	±0.5 ±0.1	±4.5	±23	±1.5 ±0.1	±5.5	±24	nA max nA typ	$V_S = \pm 10\text{ V}$ , $V_D = \mp 10\text{ V}$ , see Figure 33
Channel On Leakage, $I_D$ (On), $I_S$ (On)	±0.5 ±0.3 ±1.0	±4.5	±19 ±4.5	±1.5 ±0.3 ±2.0	±5.5	±20 ±5.5	nA max nA typ nA max	$V_S = V_D = \pm 10\text{ V}$ , see Figure 34

### ±20 V DUAL SUPPLY

$V_{DD} = 20\text{ V} \pm 10\%$ ,  $V_{SS} = -20\text{ V} \pm 10\%$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted.

Parameter	Rev. A			Rev. B			Unit	Test Conditions/Comments
	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C		
LEAKAGE CURRENTS								
Source Off Leakage, $I_S$ (Off)	±0.1			±0.1			nA typ	$V_{DD} = 22\text{ V}$ , $V_{SS} = -22\text{ V}$ $V_S = \pm 15\text{ V}$ , $V_D = \mp 15\text{ V}$ , see Figure 33
Drain Off Leakage, $I_D$ (Off)	±0.5 ±0.1	±4.5	±23	±1.5 ±0.1	±5.5	±24	nA max nA typ	$V_S = \pm 15\text{ V}$ , $V_D = \mp 15\text{ V}$ , see Figure 33
Channel On Leakage, $I_D$ (On), $I_S$ (On)	±0.5 ±0.3 ±1.8	±4.5	±19 ±5.3	±1.5 ±0.3 ±2.0	±5.5	±20 ±5.5	nA max nA typ nA max	$V_S = V_D = \pm 15\text{ V}$ , see Figure 34

## 12 V SINGLE SUPPLY

$V_{DD} = 12\text{ V} \pm 10\%$ ,  $V_{SS} = 0\text{ V}$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted.

	Rev. A			Rev. B				
Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
LEAKAGE CURRENTS								$V_{DD} = 13.2\text{ V}$ , $V_{SS} = 0\text{ V}$
Source Off Leakage, $I_S$ (Off)	±0.1			±0.1			nA typ	$V_S = 1\text{ V}/10\text{ V}$ , $V_D = 10\text{ V}/1\text{ V}$ , see Figure 33
Drain Off Leakage, $I_D$ (Off)	±0.5 ±0.1	±4.5	±23	±1.5 ±0.1	±5.5	±24	nA max nA typ	$V_S = 1\text{ V}/10\text{ V}$ , $V_D = 10\text{ V}/1\text{ V}$ , see Figure 33
Channel On Leakage, $I_D$ (On), $I_S$ (On)	±0.5 ±0.3	±4.5	±19	±1.5 ±0.3	±5.5	±20	nA max nA typ	$V_S = V_D = 1\text{ V}/10\text{ V}$ , see Figure 34
	±1.0	±1.6	±4.5	±2.0	±2.5	±5.5	nA max	

## 36 V SINGLE SUPPLY

$V_{DD} = 36\text{ V} \pm 10\%$ ,  $V_{SS} = 0\text{ V}$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted.

	Rev. A			Rev. B				
Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
LEAKAGE CURRENTS								$V_{DD} = 39.6\text{ V}$ , $V_{SS} = 0\text{ V}$
Source Off Leakage, $I_S$ (Off)	±0.1			±0.1			nA typ	$V_S = 1\text{ V}/30\text{ V}$ , $V_D = 30\text{ V}/1\text{ V}$ , see Figure 33
Drain Off Leakage, $I_D$ (Off)	±0.5 ±0.1	±4.5	±23	±1.5 ±0.1	±5.5	±24	nA max nA typ	$V_S = 1\text{ V}/30\text{ V}$ , $V_D = 30\text{ V}/1\text{ V}$ , see Figure 33
Channel On Leakage, $I_D$ (On), $I_S$ (On)	±0.5 ±0.3	±4.5	±17	±1.5 ±0.3	±5.5	±20	nA max nA typ	$V_S = V_D = 1\text{ V}/30\text{ V}$ , see Figure 34
	±1.0	±1.6	±4.5	±2.0	±2.5	±5.5	nA max	

### 3. ADG5404F SPECIFICATION CHANGES FROM Rev. A to Rev. B

#### ±15 V DUAL SUPPLY

$V_{DD} = 15\text{ V} \pm 10\%$ ,  $V_{SS} = -15\text{ V} \pm 10\%$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted.

Parameter	Rev. A			Rev. B			Unit	Test Conditions/Comments
	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C		
LEAKAGE CURRENTS								$V_{DD} = 16.5\text{ V}$ , $V_{SS} = -16.5\text{ V}$
Source Off Leakage, $I_S$ (Off)	±0.1			±0.1			nA typ	$V_S = \pm 10\text{ V}$ , $V_D = \mp 10\text{ V}$ , see Figure 32
Drain Off Leakage, $I_D$ (Off)	±0.5 ±0.3	±4	±20	±1.5 ±0.3	±5.0	±21	nA max nA typ	$V_S = \pm 10\text{ V}$ , $V_D = \mp 10\text{ V}$ , see Figure 32
Channel On Leakage, $I_D$ (On), $I_S$ (On)	±1.0 ±0.3	±15	±65	±1.5 ±0.3	±16.0	±66	nA max nA typ	$V_S = V_D = \pm 10\text{ V}$ , see Figure 33
	±1.0	±13.4	±55	±1.5	±14.0	±56	nA max	

#### ±20 V DUAL SUPPLY

$V_{DD} = 20\text{ V} \pm 10\%$ ,  $V_{SS} = -20\text{ V} \pm 10\%$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted.

Parameter	Rev. A			Rev. B			Unit	Test Conditions/Comments
	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C		
LEAKAGE CURRENTS								$V_{DD} = 22\text{ V}$ , $V_{SS} = -22\text{ V}$
Source Off Leakage, $I_S$ (Off)	±0.1			±0.1			nA typ	$V_S = \pm 15\text{ V}$ , $V_D = \pm 15\text{ V}$ , see Figure 32
Drain Off Leakage, $I_D$ (Off)	±0.5 ±0.3	±4	±20	±1.5 ±0.3	±5.0	±21	nA max nA typ	$V_S = \pm 15\text{ V}$ , $V_D = \pm 15\text{ V}$ , see Figure 32
Channel On Leakage, $I_D$ (On), $I_S$ (On)	±1.0 ±0.3	±15	±65	±1.5 ±0.3	±16.0	±66	nA max nA typ	$V_S = V_D = \pm 15\text{ V}$ , see Figure 33
	±1.0	±13.4	±55	±1.5	±14.0	±56	nA max	

## 12 V SINGLE SUPPLY

$V_{DD} = 12\text{ V} \pm 10\%$ ,  $V_{SS} = 0\text{ V}$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted.

	Rev. A			Rev. B				
Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
LEAKAGE CURRENTS								$V_{DD} = 13.2\text{ V}$ , $V_{SS} = 0\text{ V}$
Source Off Leakage, $I_S$ (Off)	$\pm 0.1$			$\pm 0.1$			nA typ	$V_S = 1\text{ V}/10\text{ V}$ , $V_D = 10\text{ V}/1\text{ V}$ , see Figure 32
Drain Off Leakage, $I_D$ (Off)	$\pm 0.5$ $\pm 0.3$	$\pm 4$	$\pm 20$	$\pm 1.5$ $\pm 0.3$	$\pm 5.0$	$\pm 21$	nA max nA typ	$V_S = 1\text{ V}/10\text{ V}$ , $V_D = 10\text{ V}/1\text{ V}$ , see Figure 32
Channel On Leakage, $I_D$ (On), $I_S$ (On)	$\pm 1.0$ $\pm 0.3$	$\pm 15$	$\pm 65$	$\pm 1.5$ $\pm 0.3$	$\pm 16.0$	$\pm 66$	nA max nA typ	$V_S = V_D = 1\text{ V}/10\text{ V}$ , see Figure 33
	$\pm 1.0$	$\pm 13.4$	$\pm 55$	$\pm 1.5$	$\pm 14.0$	$\pm 56$	nA max	

## 36 V SINGLE SUPPLY

$V_{DD} = 36\text{ V} \pm 10\%$ ,  $V_{SS} = 0\text{ V}$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted

	Rev. A			Rev. B				
Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
LEAKAGE CURRENTS								$V_{DD} = 39.6\text{ V}$ , $V_{SS} = 0\text{ V}$
Source Off Leakage, $I_S$ (Off)	$\pm 0.1$			$\pm 0.1$			nA typ	$V_S = 1\text{ V}/30\text{ V}$ , $V_D = 30\text{ V}/1\text{ V}$ , see Figure 32
Drain Off Leakage, $I_D$ (Off)	$\pm 0.5$ $\pm 0.3$	$\pm 4$	$\pm 20$	$\pm 1.5$ $\pm 0.3$	$\pm 5.0$	$\pm 21$	nA max nA typ	$V_S = 1\text{ V}/30\text{ V}$ , $V_D = 30\text{ V}/1\text{ V}$ , see Figure 32
Channel On Leakage, $I_D$ (On), $I_S$ (On)	$\pm 1.0$ $\pm 0.3$	$\pm 15$	$\pm 65$	$\pm 1.5$ $\pm 0.3$	$\pm 16.0$	$\pm 66$	nA max nA typ	$V_S = V_D = 1\text{ V}/30\text{ V}$ , see Figure 33
	$\pm 1.0$	$\pm 13.4$	$\pm 55$	$\pm 1.5$	$\pm 14.0$	$\pm 56$	nA max	

## 4. ADG5436F SPECIFICATION CHANGES FROM Rev. A to Rev. B

### ±15 V DUAL SUPPLY

$V_{DD} = 15\text{ V} \pm 10\%$ ,  $V_{SS} = -15\text{ V} \pm 10\%$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted.

Parameter	Rev. A			Rev. B			Unit	Test Conditions/Comments
	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C		
LEAKAGE CURRENTS								$V_{DD} = 16.5\text{ V}$ , $V_{SS} = -16.5\text{ V}$
Source Off Leakage, $I_S$ (Off)	±0.1			±0.1			nA typ	$V_S = \pm 10\text{ V}$ , $V_D = \mp 10\text{ V}$ , see Figure 31
Drain Off Leakage, $I_D$ (Off)	±0.5	±4.0	±20	±1.5	±5.0	±21	nA max	$V_S = \pm 10\text{ V}$ , $V_D = \mp 10\text{ V}$ , see Figure 31
	±0.1			±0.1			nA typ	
Channel On Leakage, $I_D$ (On), $I_S$ (On)	±0.5	±6.0	±24	±1.5	±7.0	±25	nA max	$V_S = V_D = \pm 10\text{ V}$ , see Figure 32
	±0.5			±0.5			nA typ	
	±1.0	±4.0	±20	±1.5	±5.0	±21	nA max	
Drain Leakage Current, $I_D$ With Overvoltage	±1.2			±2.0			nA typ	$V_{DD} = 16.5\text{ V}$ , $V_{SS} = 16.5\text{ V}$ , $GND = 0\text{ V}$ , $V_S = \pm 55\text{ V}$ , see Figure 35
	±4.0	±11	±45	±8.0	±15	±49	nA max	

### ±20 V DUAL SUPPLY

$V_{DD} = 20\text{ V} \pm 10\%$ ,  $V_{SS} = -20\text{ V} \pm 10\%$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted.

Parameter	Rev. A			Rev. B			Unit	Test Conditions/Comments
	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C		
LEAKAGE CURRENTS								$V_{DD} = 22\text{ V}$ , $V_{SS} = -22\text{ V}$
Source Off Leakage, $I_S$ (Off)	±0.1			±0.1			nA typ	$V_S = \pm 15\text{ V}$ , $V_D = \mp 15\text{ V}$ , see Figure 31
Drain Off Leakage, $I_D$ (Off)	±0.5	±4.0	±20	±1.5	±5.0	±21	nA max	$V_S = \pm 15\text{ V}$ , $V_D = \mp 15\text{ V}$ , see Figure 31
	±0.1			±0.1			nA typ	
Channel On Leakage, $I_D$ (On), $I_S$ (On)	±0.5	±6.0	±24	±1.5	±7.0	±25	nA max	$V_S = V_D = \pm 15\text{ V}$ , see Figure 32
	±0.5			±0.5			nA typ	
	±1.0	±4.0	±20	±1.5	±5.0	±21	nA max	



## 12 V SINGLE SUPPLY

$V_{DD} = 12\text{ V} \pm 10\%$ ,  $V_{SS} = 0\text{ V}$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted.

	Rev. A			Rev. B				
Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
LEAKAGE CURRENTS								$V_{DD} = 13.2\text{ V}$ , $V_{SS} = 0\text{ V}$
Source Off Leakage, $I_S$ (Off)	$\pm 0.1$			$\pm 0.1$			nA typ	$V_S = 1\text{ V}/10\text{ V}$ , $V_D = 10\text{ V}/1\text{ V}$ , see Figure 31
Drain Off Leakage, $I_D$ (Off)	$\pm 0.5$ $\pm 0.1$	$\pm 4.0$	$\pm 20$	$\pm 1.5$ $\pm 0.1$	$\pm 5.0$	$\pm 21$	nA max nA typ	$V_S = 1\text{ V}/10\text{ V}$ , $V_D = 10\text{ V}/1\text{ V}$ , see Figure 31
Channel On Leakage, $I_D$ (On), $I_S$ (On)	$\pm 0.5$ $\pm 0.5$	$\pm 6.0$	$\pm 24$	$\pm 1.5$ $\pm 0.5$	$\pm 7.0$	$\pm 25$	nA max nA typ	$V_S = V_D = 1\text{ V}/10\text{ V}$ , see Figure 32
Drain Leakage Current, $I_D$ With Overvoltage	$\pm 1.0$ $\pm 1.2$	$\pm 4.0$	$\pm 20$	$\pm 1.5$ $\pm 2.0$	$\pm 5.0$	$\pm 21$	nA max nA typ	$V_{DD} = 13.2\text{ V}$ , $V_{SS} = 0\text{ V}$ or floating, $GND = 0\text{ V}$ , $V_S = \pm 55\text{ V}$ , see Figure 35
	$\pm 4.0$	$\pm 11$	$\pm 45$	$\pm 8.0$	$\pm 15$	$\pm 49$	nA max	

## 36 V SINGLE SUPPLY

$V_{DD} = 36\text{ V} \pm 10\%$ ,  $V_{SS} = 0\text{ V}$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted

	Rev. A			Rev. B				
Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
LEAKAGE CURRENTS								$V_{DD} = 39.6\text{ V}$ , $V_{SS} = 0\text{ V}$
Source Off Leakage, $I_S$ (Off)	$\pm 0.1$			$\pm 0.1$			nA typ	$V_S = 1\text{ V}/30\text{ V}$ , $V_D = 30\text{ V}/1\text{ V}$ , see Figure 31
Drain Off Leakage, $I_D$ (Off)	$\pm 0.5$ $\pm 0.1$	$\pm 4.0$	$\pm 20$	$\pm 1.5$ $\pm 0.1$	$\pm 5.0$	$\pm 21$	nA max nA typ	$V_S = 1\text{ V}/30\text{ V}$ , $V_D = 30\text{ V}/1\text{ V}$ , see Figure 31
Channel On Leakage, $I_D$ (On), $I_S$ (On)	$\pm 0.5$ $\pm 0.5$	$\pm 6.0$	$\pm 24$	$\pm 1.5$ $\pm 0.5$	$\pm 7.0$	$\pm 25$	nA max nA typ	$V_S = V_D = 1\text{ V}/30\text{ V}$ , see Figure 32
Drain Leakage Current, $I_D$ With Overvoltage	$\pm 1.0$ $\pm 1.2$	$\pm 4.0$	$\pm 20$	$\pm 1.5$ $\pm 2.0$	$\pm 5.0$	$\pm 21$	nA max nA typ	$V_{DD} = 39.6\text{ V}$ , $V_{SS} = 0\text{ V}$ or floating, $GND = 0\text{ V}$ , $V_S = +55\text{ V}$ , $-40\text{ V}$ , see Figure 35
	$\pm 4.0$	$\pm 11$	$\pm 45$	$\pm 8.0$	$\pm 15$	$\pm 49$	nA max	

## 5. ADG5462F SPECIFICATION CHANGES FROM Rev. A to Rev. B

### ±15 V DUAL SUPPLY

$V_{DD} = 15\text{ V} \pm 10\%$ ,  $V_{SS} = -15\text{ V} \pm 10\%$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted.

Parameter	Rev. A			Rev. B			Unit	Test Conditions/Comments
	+25°C	-40°C to +85°C	-40°C to +125°C	+25°C	-40°C to +85°C	-40°C to +125°C		
LEAKAGE CURRENTS								
Channel On Leakage, $I_D$ (On), $I_S$ (On)	±0.3 ±1.0	±1.4	±4	±0.3 ±1.5	±2.0	±4.5	nA typ nA max	$V_{DD} = 16.5\text{ V}$ , $V_{SS} = -16.5\text{ V}$ $V_S = V_D = \pm 10\text{ V}$ , see Figure 36
Drain Leakage Current, $I_D$ With Overvoltage	±1.2 ±4.0			±2.0 ±8.0			nA typ nA max	$V_{DD} = 16.5\text{ V}$ , $V_{SS} = 16.5\text{ V}$ , $GND = 0\text{ V}$ , $V_S = \pm 55\text{ V}$ , see Figure 37

### ±20 V DUAL SUPPLY

$V_{DD} = 20\text{ V} \pm 10\%$ ,  $V_{SS} = -20\text{ V} \pm 10\%$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted.

Parameter	Rev. A			Rev. B			Unit	Test Conditions/Comments
	+25°C	-40°C to +85°C	-40°C to +125°C	+25°C	-40°C to +85°C	-40°C to +125°C		
LEAKAGE CURRENTS								
Channel On Leakage, $I_D$ (On), $I_S$ (On)	±0.3 ±1.0	±1.4	±4	±0.3 ±1.5	±2.0	±4.5	nA typ nA max	$V_{DD} = 22\text{ V}$ , $V_{SS} = -22\text{ V}$ $V_S = \pm 15\text{ V}$ , $V_D = \mp 15\text{ V}$ , see Figure 36

### 12 V SINGLE SUPPLY

$V_{DD} = 12\text{ V} \pm 10\%$ ,  $V_{SS} = 0\text{ V}$ ,  $GND = 0\text{ V}$ ,  $C_{DECOUPLING} = 0.1\text{ }\mu\text{F}$ , unless otherwise noted.

Parameter	Rev. A			Rev. B			Unit	Test Conditions/Comments
	+25°C	-40°C to +85°C	-40°C to +125°C	+25°C	-40°C to +85°C	-40°C to +125°C		
LEAKAGE CURRENTS								
Channel On Leakage, $I_D$ (On), $I_S$ (On)	±0.3 ±1.0	±1.4	±4	±0.3 ±1.5	±2.0	±4.5	nA typ nA max	$V_{DD} = 13.2\text{ V}$ , $V_{SS} = 0\text{ V}$ $V_S = 1\text{ V}/10\text{ V}$ , $V_D = 10\text{ V}/1\text{ V}$ , see Figure 36
Drain Leakage Current, $I_D$ With Overvoltage	±1.2 ±4.0			±2.0 ±8.0			nA typ nA max	$V_{DD} = 13.2\text{ V}$ , $V_{SS} = 0\text{ V}$ or floating, $GND = 0\text{ V}$ , $V_S = \pm 55\text{ V}$ , see Figure 37

36 V SINGLE SUPPLY

V<sub>DD</sub> = 36 V ± 10%, V<sub>SS</sub> = 0 V, GND = 0 V, C<sub>DECOUPLING</sub> = 0.1 µF, unless otherwise noted

	Rev. A			Rev. B				
Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
LEAKAGE CURRENTS								V <sub>DD</sub> = 39.6 V, V <sub>SS</sub> = 0 V
Channel On Leakage, I <sub>D</sub> (On), I <sub>S</sub> (On)	±0.3			±0.3			nA typ	V <sub>S</sub> = 1 V/30 V, V <sub>D</sub> = 30 V/1 V, see Figure 36
	±1.0	±1.4	±4	±1.5	±2.0	±4.5	nA max	
Drain Leakage Current, I <sub>D</sub> With Overvoltage	±1.2			±2.0			nA typ	V <sub>DD</sub> = 39.6 V, V <sub>SS</sub> = 0 V or floating, GND = 0 V, V <sub>S</sub> = +55 V, −40 V, see Figure 37
	±4.0	±11	±45	±8.0	±15	±49	nA max	