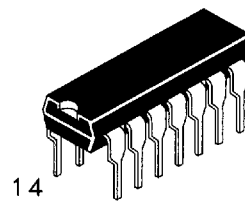


DV74ALS1010A

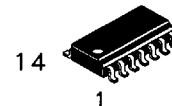
Triple 3-Input NAND Buffers

This device contains three independent buffers, each of which performs the logic NAND function.

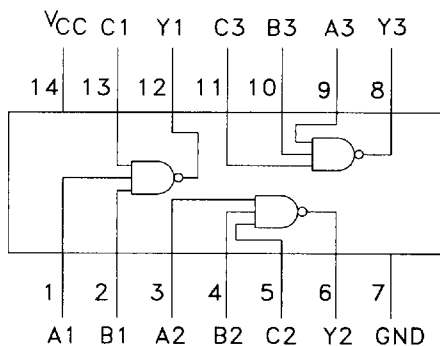
- AVG's ALS has guaranteed DC and AC specification over full temperature and V_{CC} range
- Switching specifications for ALS at 50 pF
- AVG's ALS has the lowest speed power product (4pJ per gate typical) of all logic series
- Higher speed and 24mA Output Drive
- 24mA Low Level Output Drive



N Suffix
Plastic DIP
AVG-001 Case



D Suffix
Plastic SOP
AVG-002 Case



TRUTH TABLE
 $Y=ABC$

Inputs			Outputs
A	B	C	Y
L	X	X	H
X	L	X	H
X	X	L	H
H	H	H	L

H = High Level Logic

L = Low Level Logic

X = Don't Care

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	ALS1010A	Unit
V_{CC}	Supply Voltage	7.0	V
V_{IN}	Input Voltage	7.0	V
T_{STG}	Storage Temperature Range	-65 to +150	°C

GUARANTEED OPERATING CONDITIONS

Symbol	Parameter	ALS1010A		Unit
		Min	Max	
V_{CC}	Supply Voltage	4.5	5.5	V
V_{IH}	High Level Input Voltage	2.0		V
V_{IL}	Low Level Input Voltage		0.8	V
I_{OH}	High Level Output Current		-2.6	mA
I_{OL}	Low Level Output Current		24	mA
T_A	Ambient Temperature Range	-10 to +70		°C

DC ELECTRICAL CHARACTERISTICS over full operating conditions

Symbol	Parameter	Conditions	ALS1010A			Unit	
			Min	Typ	Max		
V _{IK}	Input Clamp Voltage	V _{CC} = min, I _{IN} = -18 mA			-1.5	V	
V _{OH}	High Level Output Voltage	V _{CC} =min	I _{OH} =max	2.4	3.2	V	
			I _{OH} =-0.4mA	V _{CC} -2		V	
V _{OL}	Low Level Output Voltage	V _{CC} =min	I _{OL} =12.0mA		0.25	0.4	V
			I _{OL} =24.0 mA		0.35	0.5	V
I _{IH}	High Level Input Current	V _{CC} =max, V _{IN} =2.7V			20	μA	
		V _{CC} =max, V _{IN} = 7.0V			0.1	mA	
I _{IL}	Low Level Input Current	V _{CC} =max, V _{IN} =0.4V			-0.1	mA	
I _O	Output Drive Current	V _{CC} =max, V _O =2.25V	-30		-112	mA	
I _{CC}	Supply Current V _{CC} =max	Total, Output HIGH		0.65	1.2	mA	
		Total, Output LOW		3.6	5.8	mA	

SWITCHING CHARACTERISTICS over full operating conditions

Symbol	Parameter	C _L = 50 pF R _L = 500Ω		Unit
		Min	Max	
t _{PLH}	Turn Off Delay, Input to Output	2	8	ns
t _{PHL}	Turn On Delay, Input to Output	2	8	ns

SWITCHING WAVEFORMS

