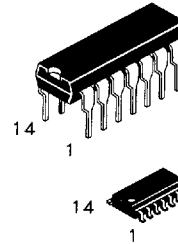


9-Bit Odd/Even Parity Generator/Checker

This device features Odd/Even Outputs to facilitate either Odd or Even parity. It can be expanded using the I Data Input as a cascade input.

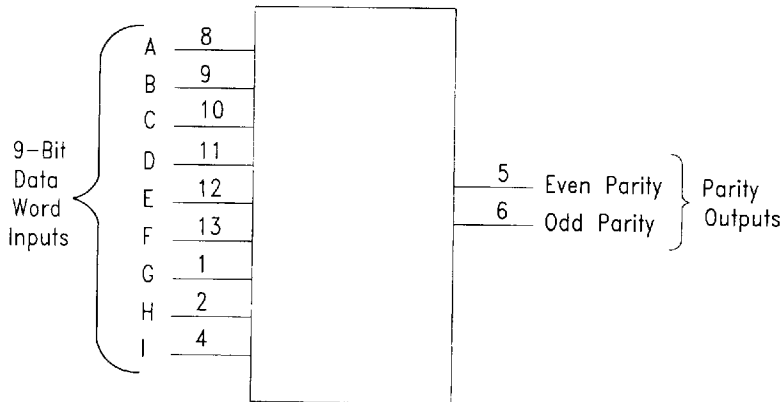
- AVG's LS operates over extended Vcc from 4.5 to 5.5 V
- AVG's LS and ALS both have guaranteed DC and AC specification over full temperature and Vcc range
- Switching specifications for ALS at 50 pF
- AVG's ALS has the lowest speed power product (4pJ per gate typical) of all logic series

DV74LS280 DV74ALS280

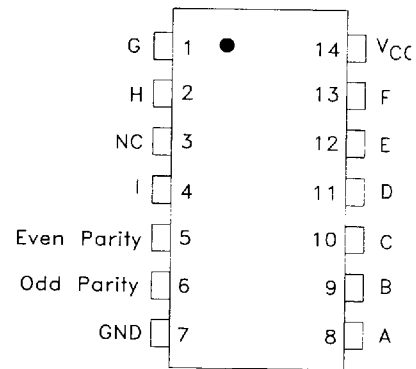


N Suffix
Plastic DIP
AVG-001 Case

D Suffix
Plastic SOP
AVG-002 Case



PIN 14 = V_{CC}
PIN 7 = GND
No Connection = PIN 3



NC = No Connection

TRUTH TABLE		
Number of Inputs A thru I that are HIGH	Outputs	
	Σ EVEN	Σ ODD
0, 2, 4, 6, 8	H	L
1, 3, 5, 7, 9	L	H

H=HIGH Voltage Level
L=LOW Voltage Level

ABSOLUTE MAXIMUM RATINGS

Maximum ratings are those values beyond which damage to the device may occur.

Symbol	Parameter	LS280	ALS280	Unit
V _{CC}	Supply Voltage	+7.0	+7.0	V
V _{IN}	Input Voltage	-0.5 to +7.0	+7.0	V
T _{STG}	Storage Temperature Range	-65 to +150	-65 to +150	°C

GUARANTEED OPERATING CONDITIONS

Symbol	Parameter	LS280		ALS280		Unit
		Min	Max	Min	Max	
V _{CC}	Supply Voltage	4.5	5.5	4.5	5.5	V
V _{IH}	High Level Input Voltage	2.0		2.0		V
V _{IL}	Low Level Input Voltage		0.8		0.8	V
I _{OH}	High Level Output Current		-0.4		-2.6	mA
I _{OL}	Low Level Output Current		8.0		24	mA
T _A	Operating Free Air Temperature Range	-10 to 70		-10 to 70		°C

DC ELECTRICAL CHARACTERISTICS over full operating range

Symbol	Parameter	Condition	LS280			ALS280			Unit
			Min	Typ	Max	Min	Typ	Max	
V_{IK}	Input Clamp Voltage	$V_{CC} = \min, I_{IN} = -18 \text{ mA}$			-1.5			-1.5	V
V_{OH}	High Level Output Voltage	$V_{CC} = \min, I_{OH} = \max, V_{IN} = V_{IH} \text{ or } V_{IL} \text{ per Truth Table}$	$V_{CC}-2$	3.5		$V_{CC}-2$			V
V_{OL}	Low Level Output Voltage	$V_{CC} = \min$ $I_{OL} = 4.0 \text{ mA}$		0.25	0.4				V
				0.35	0.5				V
							0.25	0.4	V
							0.35	0.5	V
I_{IH}	High Level Input Current	$V_{CC} = \max, V_{IN} = 2.7 \text{ V}$			20			20	μA
		$V_{CC} = \max, V_{IN} = 7 \text{ V}$			0.1			0.1	mA
I_{IL}	Low Level Input Current	$V_{CC} = \max, V_{IN} = 0.4 \text{ V}$			-0.4			-0.1	mA
I_O	Output Short Circuit Current	$V_{CC} = \max, V_{OUT} = 2.25 \text{ V}$	-20		-110	-30		-112	mA
I_{CC}	Supply Current	$V_{CC} = \max, \text{Outputs Disabled}$			27		10	16	mA

SWITCHING CHARACTERISTICS over full operating conditions

Symbol	Parameter	LS280 $C_L = 15 \text{ pF}$		ALS280 $C_L = 50 \text{ pF}$ $R_L = 500 \Omega$		Unit
		Min	Max	Min	Max	
t_{PLH}	Propagation Delay Time Data to Output Σ EVEN		50	3	20	ns
t_{PHL}	Propagation Delay Time Data to Output Σ EVEN		45	3	20	ns
t_{PLH}	Propagation Delay Time Data to Output Σ ODD		35	3	20	ns
t_{PHL}	Propagation Delay Time Data to Output Σ ODD		50	4	22	ns

SWITCHING WAVEFORMS