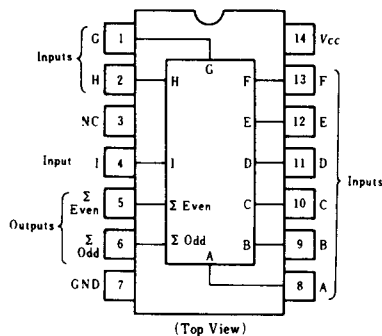


HD74LS280 ● 9-bit Odd/Even Parity Generators/Checkers

This parity generator/checker offers the designer a trade-off between reduced power consumption and high performance. Although the HD74LS280 is implemented without expander inputs, the corresponding function is provided by the availability of an input at pin 4 and the absence of any internal connection at pin 3.

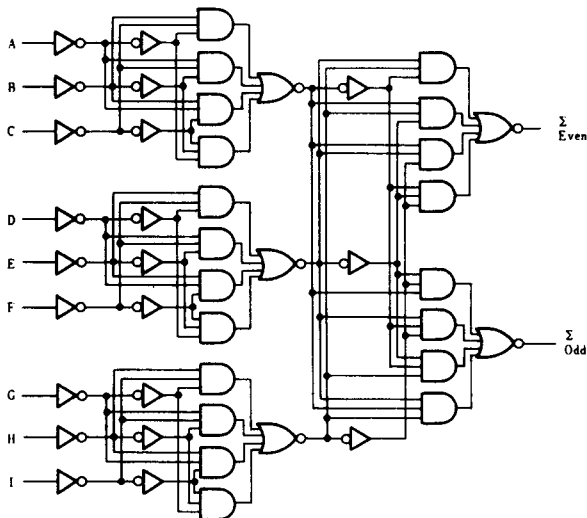
■ PIN ARRANGEMENT



■ FUNCTION TABLE

Number of inputs A through I that are high	Outputs	
	Σ Even	Σ Odd
0, 2, 4, 6, 8	H	L
1, 3, 5, 7, 9	L	H

■ BLOCK DIAGRAM



■ ELECTRICAL CHARACTERISTICS (Ta = -20 ~ +75°C)

Item	Symbol	Test Conditions	min	typ*	max	Unit	
Input voltage	V_{IH}		2.0	—	—	V	
	V_{IL}		—	—	0.8	V	
Output voltage	V_{OH}	$V_{CC}=4.75V, V_{IH}=2V, V_{IL}=0.8V, I_{OH}=-400\mu A$	2.7	—	—	V	
	V_{OL}	$V_{CC}=4.75V, V_{IH}=2V, V_{IL}=0.8V$	$I_{OL}=4mA$	—	—	0.4	V
			$I_{OL}=8mA$	—	—	0.5	
Input current	I_{IH}	$V_{CC}=5.25V, V_I=2.7V$	—	—	20	μA	
	I_{IL}	$V_{CC}=5.25V, V_I=0.4V$	—	—	-0.4	mA	
	I_I	$V_{CC}=5.25V, V_I=7V$	—	—	0.1	mA	
Short-circuit output current	I_{OS}	$V_{CC}=5.25V$	-20	—	-100	mA	
Supply current**	I_{CC}	$V_{CC}=5.25V$	—	16	27	mA	
Input clamp voltage	V_{IK}	$V_{CC}=4.75V, I_{IH}=-18mA$	—	—	-1.5	V	

* $V_{CC}=5V, T_a=25^\circ C$

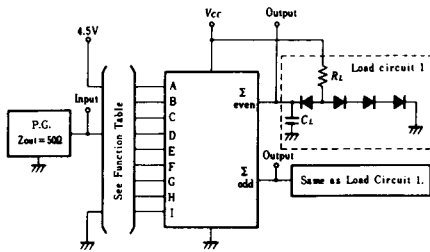
** I_{CC} is measured with all outputs open and all inputs grounded.

SWITCHING CHARACTERISTICS ($V_{CC}=5V$, $T_a=25^\circ C$)

Item	Symbol	Outputs	Test Conditions	min	typ	max	Unit
Propagation delay time	t_{PLH}	Σ Even	$C_L = 15\text{pF}$, $R_L = 2\text{k}\Omega$	—	33	50	ns
	t_{PHL}			—	29	45	ns
	t_{PLH}	Σ Odd		—	23	45	ns
	t_{PHL}			—	31	50	ns

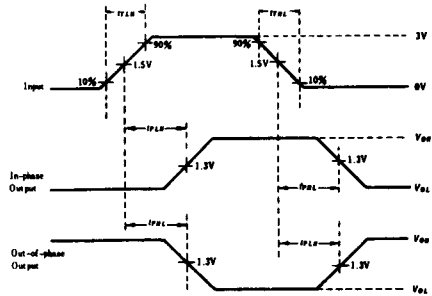
TESTING METHOD

1) Test circuit



- Notes) 1. C_L includes probe and jig capacitance.
 2. All diodes are 1S2074 (H)

Waveform



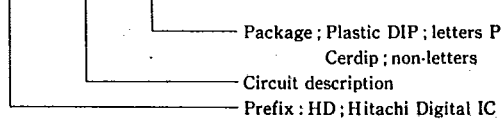
Input pulse; $t_{TLH} \leq 15\text{ns}$, $t_{THL} \leq 6\text{ns}$,
 $PRR = 1\text{MHz}$, duty cycle 50%.

PACKAGING INFORMATION

T-90-20

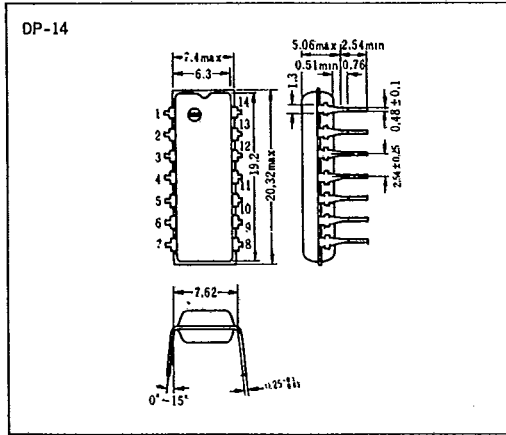
Factory orders for circuits described in this databook should include a three-part type number as explained in the following example.

HD 74LS00 P

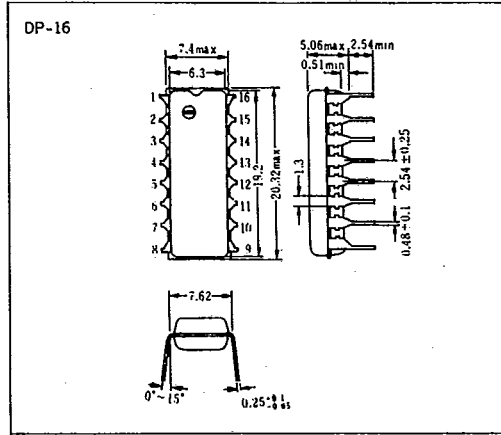


■ Plastic DIP

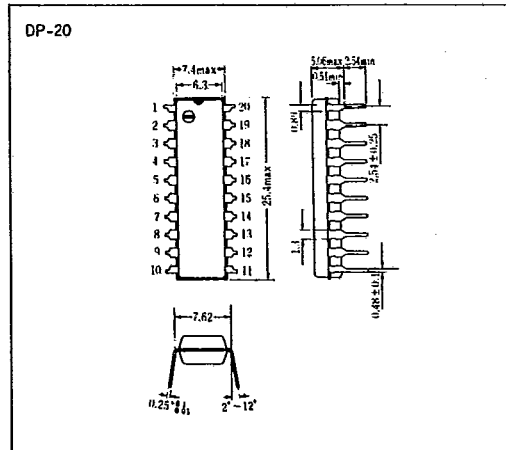
● 14 Pin



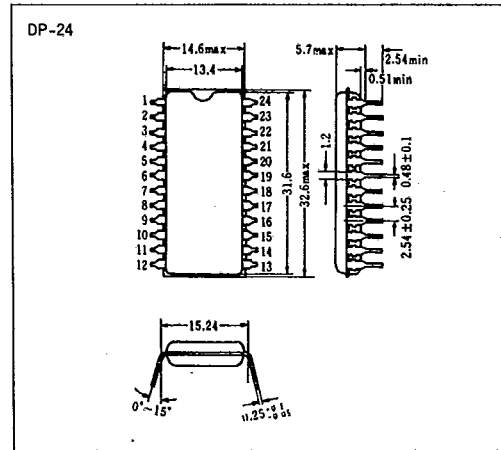
● 16 Pin



● 20 Pin



● 24 Pin

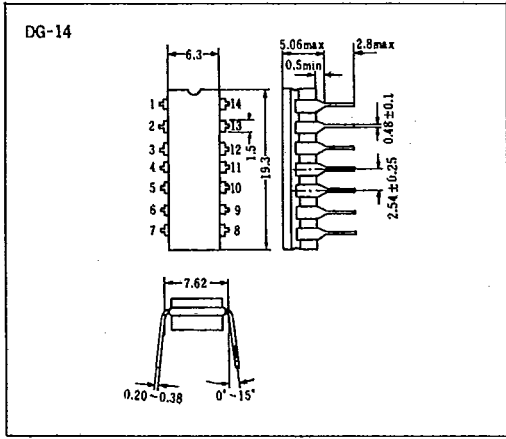


T-90-20

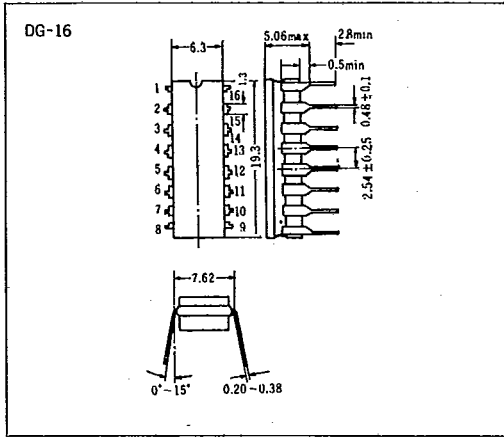
PACKAGING INFORMATION

■ Cerdip

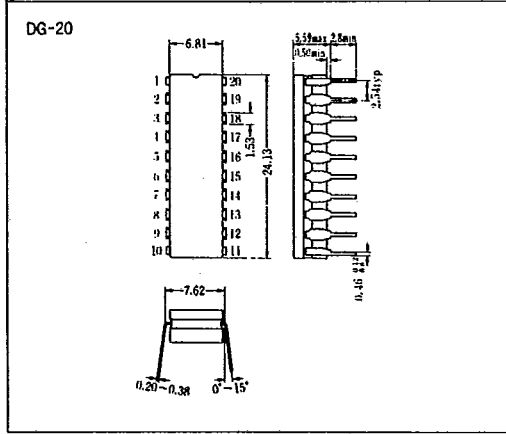
● 14 Pin



● 16 Pin



● 20 Pin



● 24 Pin

