

HD74HC280 • 9-bit Odd/Even Parity Generator/Checker

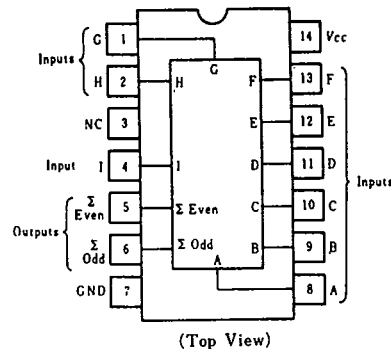
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This parity generator/checker features odd/even outputs to facilitate operation of either odd or even parity applications. The word length capability is easily expanded by cascading devices.

FEATURES

- High Speed Operation: t_{pd} (Data to Σ Even or Σ Odd)=22ns typ. ($C_L=50\text{pF}$)
- High Output Current: Fanout of 10 LSTTL Loads
- Wide Operating Voltage: $V_{CC}=2\sim 6\text{V}$
- Low Input Current: $1\mu\text{A}$ max.
- Low Quiescent Supply Current: I_{CC} (static)= $4\mu\text{A}$ max. ($T_a=25^\circ\text{C}$)

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

DC CHARACTERISTICS

Item	Symbol	$V_{CC}(\text{V})$	Test Conditions	$T_a=25^\circ\text{C}$			$T_a=-40\sim+85^\circ\text{C}$		Unit
				min	typ	max	min	max	
Input Voltage	V_{IH}	2.0	$V_{II}=V_{IH}$ or V_{IL}	1.5	—	—	1.5	—	V
		4.5		3.15	—	—	3.15	—	
		6.0		4.2	—	—	4.2	—	
	V_{IL}	2.0		—	—	0.5	—	0.5	V
		4.5		—	—	1.35	—	1.35	
		6.0		—	—	1.8	—	1.8	
Output Voltage	V_{OH}	2.0	$V_{II}=V_{IH}$ or V_{IL}	$I_{OH}=-20\mu\text{A}$		1.9	2.0	—	V
		4.5				4.4	4.5	—	
		6.0				5.9	6.0	—	
		4.5		$I_{OH}=-4\text{mA}$		4.18	—	—	
		6.0				5.68	—	—	
		6.0		$I_{OH}=-5.2\text{mA}$		—	—	5.63	
	V_{OL}	2.0	$V_{II}=V_{IH}$ or V_{IL}	$I_{OL}=20\mu\text{A}$		—	0.0	0.1	V
		4.5				—	0.0	0.1	
		6.0				—	0.0	0.1	
		4.5		$I_{OL}=4\text{mA}$		—	—	0.26	
		6.0				—	—	0.26	
		6.0		$I_{OL}=5.2\text{mA}$		—	—	0.33	
Input Current	I_{II}	6.0	$V_{II}=V_{CC}$ or GND	—	—	± 0.1	—	± 1.0	μA
Quiescent Supply Current	I_{CC}	6.0	$V_{II}=V_{CC}$ or GND, $I_{II}=0\mu\text{A}$	—	—	4.0	—	40	μA

AC CHARACTERISTICS ($C_L=50\text{pF}$, Input $t_r=t_f=6\text{ns}$)

Item	Symbol	$V_{CC}(\text{V})$	Test Conditions	$T_a=25^\circ\text{C}$			$T_a=-40\sim+85^\circ\text{C}$		Unit
				min	typ	max	min	max	
Propagation Delay Time	t_{PLH}	2.0	Data to Σ Even or Σ Odd	—	—	205	—	255	ns
	t_{PHL}	4.5		—	22	41	—	51	
	t_{PHL}	6.0		—	—	35	—	43	
Output Rise/Fall Time	t_{TLH}	2.0		—	—	75	—	95	ns
	t_{TLH}	4.5		—	5	15	—	19	
	t_{THL}	6.0		—	—	13	—	16	
Input Capacitance	C_{II}	—		—	5	10	—	10	pF

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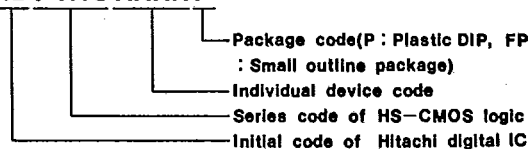
PACKAGE INFORMATION

T-90-20

In the HD74HC series of HS-CMOS logic, either of plastic DIP and small outline packages can be selected.
For your ordering, please refer to the following package code.

● Package code of HS-CMOS Logic

HD74HC XXXXP

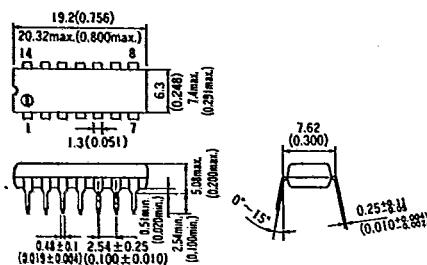


■ PLASTIC DIP PACKAGE [Unit: mm (inch), scale: 1/1]

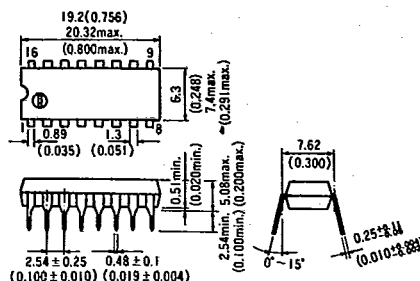
● 14-pin type

● 16-pin type

DP-14



DP-16

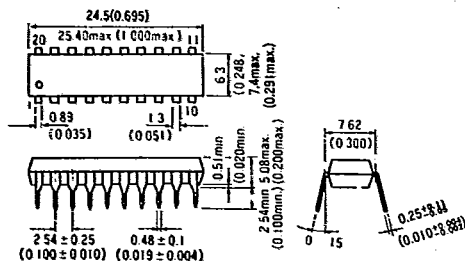


Note) For the present, both packages of 0.89 and 1.3 can be used. Please refer to the Technical Marketing Dept. for further details.

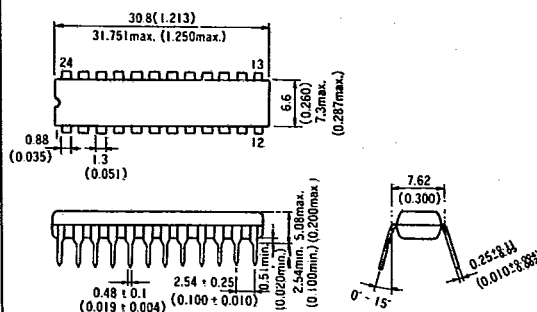
● 20-pin type

● 24-pin type

DP-20N



DP-24N



Note) Because this is under development, the dimensions may be changed partly.

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F-06



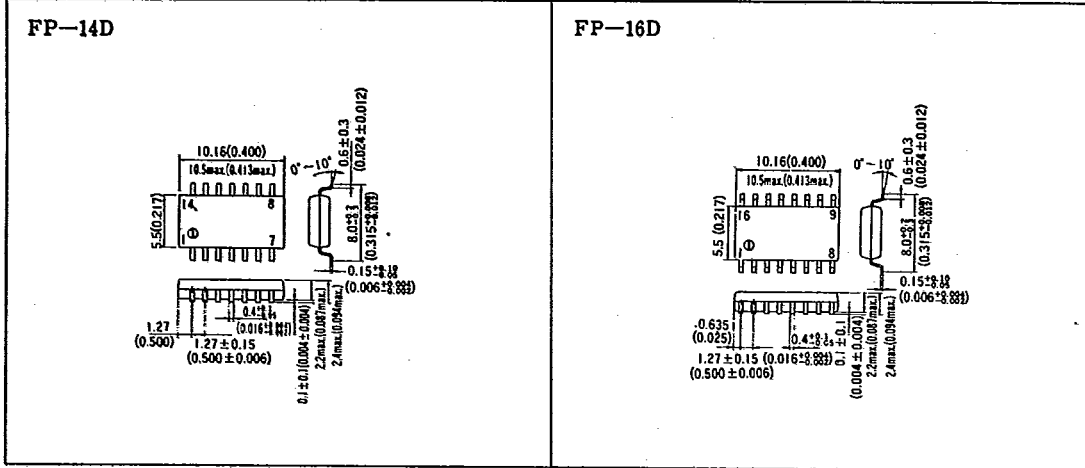
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31

■ SMALL OUTLINE PACKAGE [Unit: mm (inch), scale: 1½]

● 14—pin type

● 16—pin type



● 20—pin type

