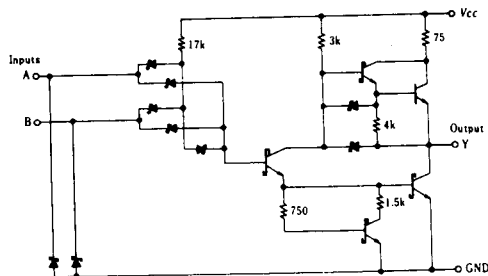


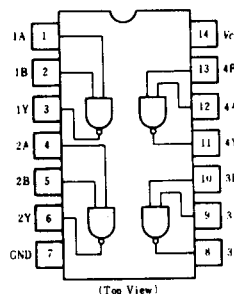
HD74LS37

● **Quadruple 2-input Positive NAND Buffers**

■ CIRCUIT SCHEMATIC(1/4)



PIN ARRANGEMENT



■ RECOMMENDED OPERATING CONDITIONS

Item	Symbol	min	typ	max	Unit
High level output current	I_{OH}	—	—	—1.2	mA
Low level output current	I_{OL}	—	—	24	mA

■ ELECTRICAL CHARACTERISTICS ($T_a = -20 \sim +75^{\circ}\text{C}$)

Item	Symbol	Test Conditions	min	typ*	max	Unit
Input voltage	V_{IH}		2.0	—	—	V
	V_{IL}		—	—	0.8	V
Output voltage	V_{OH}	$V_{CC}=4.75V, V_{IL}=0.8V, I_{OH}=-1.2mA$	2.7	—	—	V
	V_{OL}	$V_{CC}=4.75V, V_{IH}=2V$				V
		$I_{OL}=24mA$	—	—	0.5	
		$I_{OL}=12mA$	—	—	0.4	
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}	$V_{CC}=5.25V$	-30	—	-130	mA
Supply current	I_{CCH}	$V_{CC}=5.25V$	—	0.9	2.0	mA
	I_{CCL}	$V_{CC}=5.25V$	—	6	12	mA
Input clamp voltage	V_{IK}	$V_{CC}=4.75V, I_{IN}=-18mA$	—	—	-1.5	V

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

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

Item	Symbol	Test Conditions	min	typ	max	Unit
Propagation delay time	t_{PLH}	$C_L = 45\text{pF}, R_L = 667\ \Omega$	—	12	24	ns
	t_{PHL}		—	12	24	ns

Note) Refer to Test Circuit and Waveform of the Common Item



PACKAGING INFORMATION

T-90-20

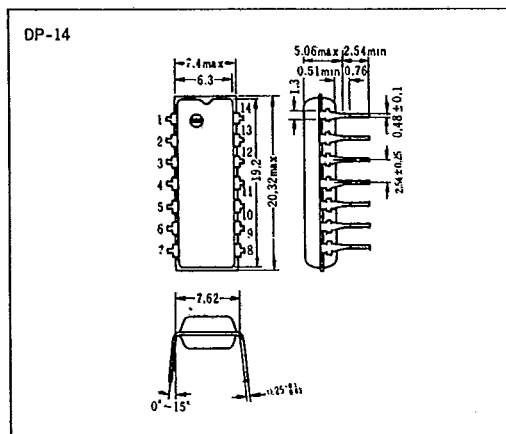
Factory orders for circuits described in this databook should include a three-part type number as explained in the following example.

HD 74LS00 P

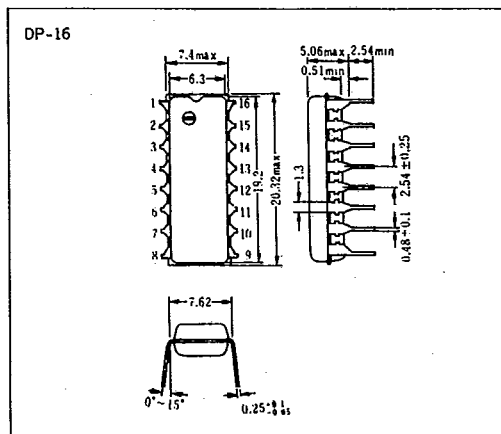
Package ; Plastic DIP ; letters P
Cerdip ; non-letters
Circuit description
Prefix : HD ; Hitachi Digital IC

■ Plastic DIP

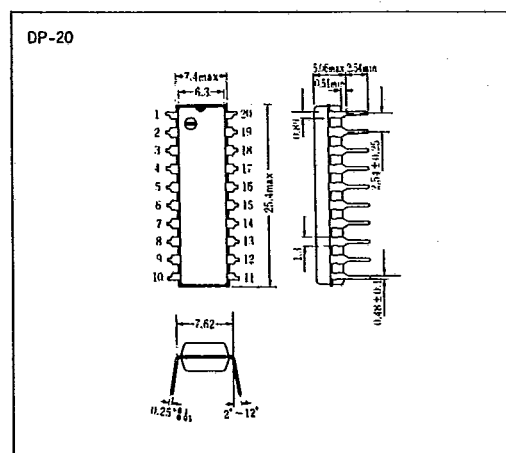
● 14 Pin



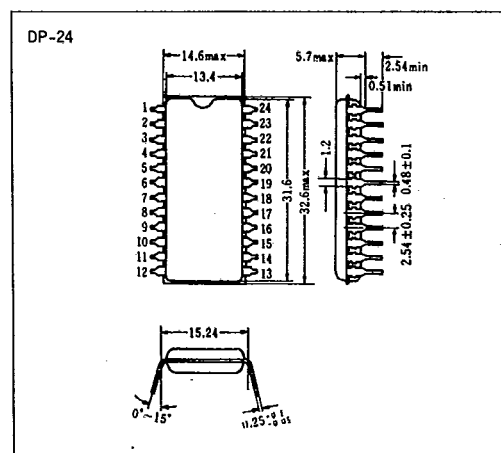
● 16 Pin



● 20 Pin



● 24 Pin



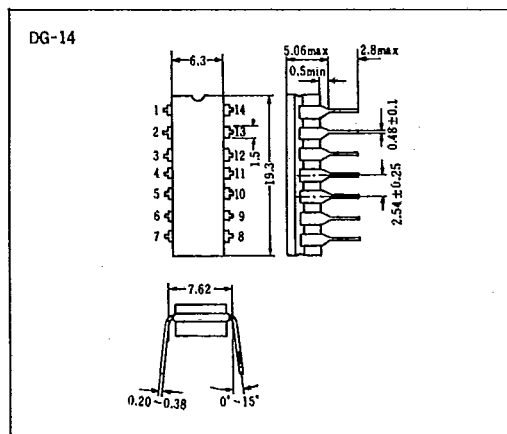
Hitachi America Ltd. • 2210 O'Toole Ave. • San Jose, CA 95131 • (408) 435-8300

T-90-20

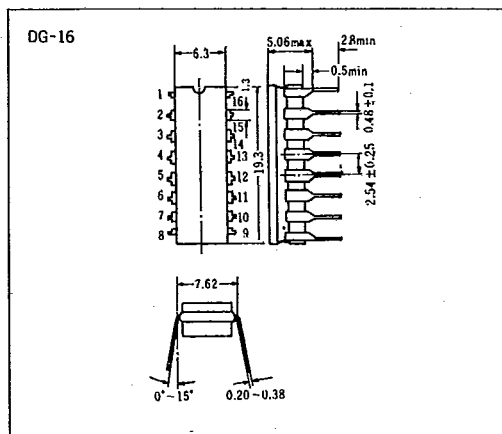
PACKAGING INFORMATION

■Cerdip

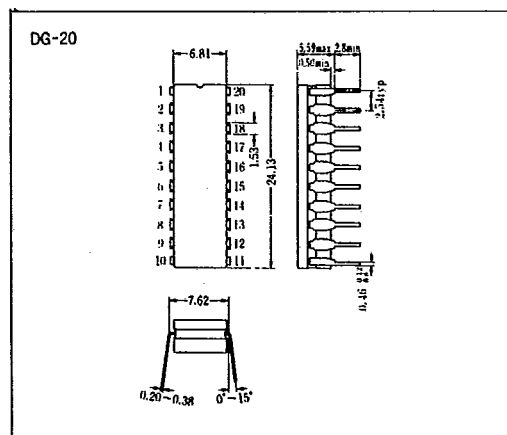
●14 Pin



●16 Pin



●20 Pin



●24 Pin

