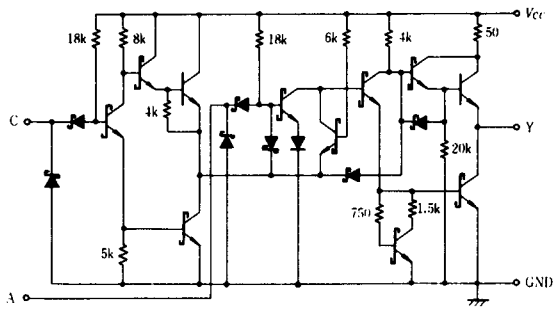
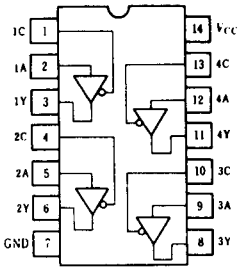
HD74LS125A ●Quadruple Bus Buffer Gates (with three-state outputs)

■CIRCUIT SCHEMATIC(¼)



■PIN ARRENGEMENT



(Top View)

■FUNCTION TABLE

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

Note) H; high level,
L; low level,
X; irrelevant
Z; off (high-impedance) state of a 3-state output

■RECOMMENDED OPERATING CONDITIONS

Item	Symbol	min	typ	max	Unit
High level output current	I_{OH}	–	–	−2.6	mA
Low level output current	I_{OL}	–	–	24	mA

■ELECTRICAL CHARACTERISTICS (Ta=−20～+75℃)

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}=−2.6mA		2.4	–	–	V
	V_{OL}	V_{CC}=4.75V, V_{IH}=2V,	I_{OL}=24mA	–	–	0.5	V
		V_{IL}=0.8V	I_{OL}=12mA	–	–	0.4	
Off-state output current	I_{OZ}	V_{CC}=5.25V, V_{IH}=2V,	V_O=2.4V	–	–	20	μA
		V_{IL}=0.8V	V_O=0.4V	–	–	− 20	
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		−40	–	−225	mA
Supply current	I_{CC}	V_{CC}=5.25V		–	11	20	mA
Input clamp voltage	V_{IK}	V_{CC}=4.75V, I_{IN}=−18mA		–	–	−1.5	V

* V_{CC}=5V, Ta=25°C

■SWITCHING CHARACTERISTICS (V_{CC}=5V, Ta=25℃)

Item	Symbol	Test Conditions	min	typ	max	Unit
Propagation delay time	t_{PLH}	C_L=45pF, R_L=667Ω	–	9	15	ns
	t_{PHL}		–	7	18	
Output enable time	t_{ZH}		–	12	20	
	t_{ZL}		–	15	25	
Output disable time	t_{HZ}	C_L=5pF, R_L=667Ω	–	–	20	
	t_{LZ}		–	–	20	

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

PACKAGING INFORMATIONS

T-90-20

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

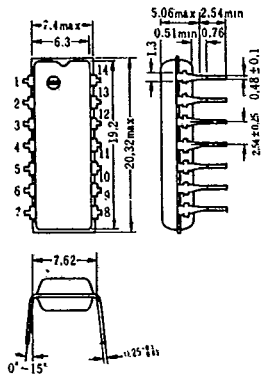
HD 74LS00 P

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

■Plastic DIP

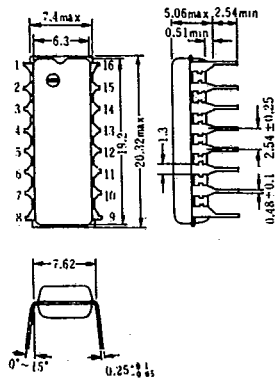
●14 Pin

DP-14



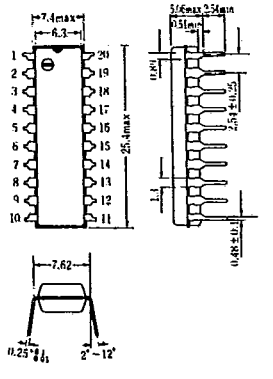
●16 Pin

DP-16



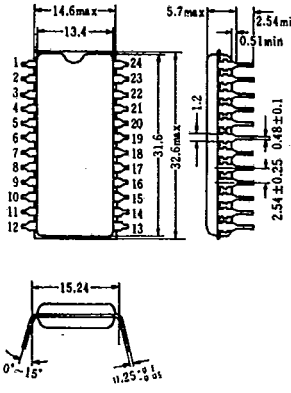
●20 Pin

DP-20



●24 Pin

DP-24



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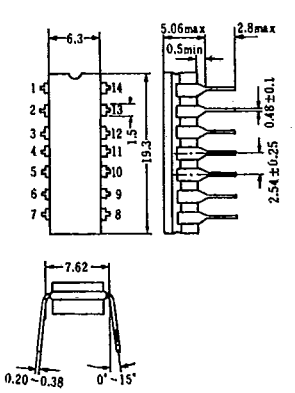
PACKAGING INFORMATIONS

■Cerdip

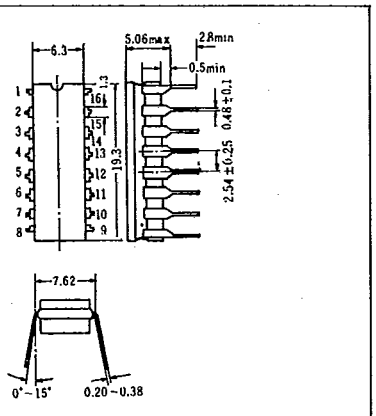
●14 Pin

DG-14



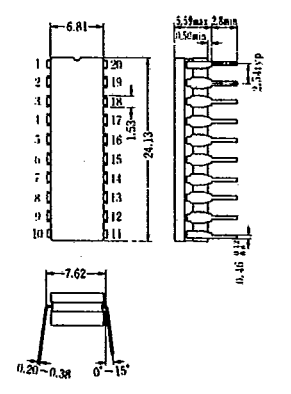
●16 Pin

DG-16



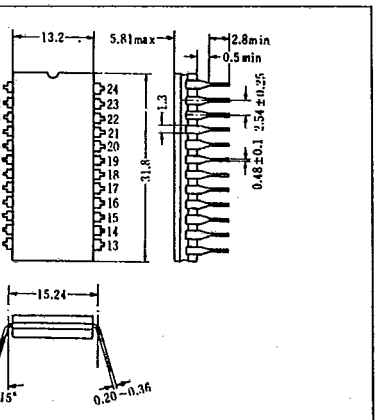
●20 Pin

DG-20



●24 Pin

DG-24



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