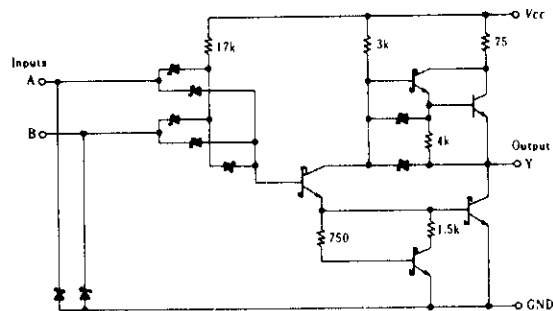
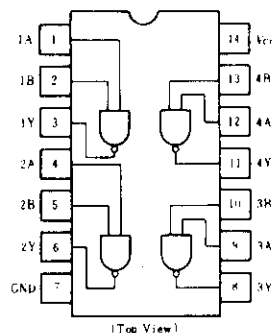


HD74LS37 ● Quadruple 2-input Positive NAND Buffers

■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}	$V_{CC}=4.75\text{V}, V_{IL}=0.8\text{V}, I_{OH}=-1.2\text{mA}$	2.7	—	—	V
	V_{OL}	$V_{CC}=4.75\text{V}, V_{IH}=2\text{V}$	$I_{OL}=24\text{mA}$	—	0.5	V
			$I_{OL}=12\text{mA}$	—	0.4	
Input current	I_{IH}	$V_{CC}=5.25\text{V}, V_I=2.7\text{V}$	—	—	20	μA
	I_{IL}	$V_{CC}=5.25\text{V}, V_I=0.4\text{V}$	—	—	-0.4	mA
	I_I	$V_{CC}=5.25\text{V}, V_I=7\text{V}$	—	—	0.1	mA
Short-circuit output current	I_{OS}	$V_{CC}=5.25\text{V}$	-30	—	-130	mA
Supply current	I_{CCH}	$V_{CC}=5.25\text{V}$	—	0.9	2.0	mA
	I_{CCL}	$V_{CC}=5.25\text{V}$	—	6	12	mA
Input clamp voltage	V_{IK}	$V_{CC}=4.75\text{V}, I_{IN}=-18\text{mA}$	—	—	-1.5	V

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

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

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

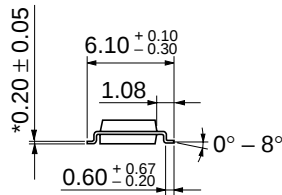


Hitachi Code	DP-14
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	0.97 g



*Dimension including the plating thickness
Base material dimension

Hitachi Code	FP-14DA
JEDEC	—
EIAJ	Conforms
Weight (reference value)	0.23 g



Hitachi Code	FP-14DN
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	0.13 g

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