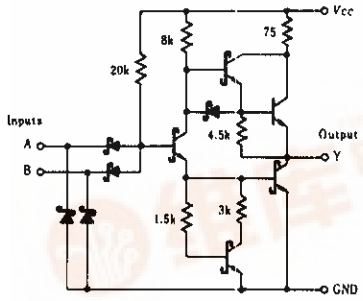
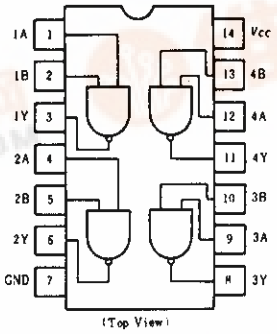
HD74LS00 ●Quadruple 2-input Positive NAND Gates

■CIRCUIT SCHEMATIC(¼)



■PIN ARRANGEMENT



■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_{IL}=0.8V, I_{OH}=−400μA		2.7	–	–	V
	V_{OL}	V_{CC}=4.75V, V_{IH}=2V	I_{OL}=8mA	–	–	0.5	V
			I_{OL}=4mA	–	–	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		−20	–	−100	mA
Supply current	I_{CCH}	V_{CC}=5.25V		–	0.8	1.6	mA
	I_{CCL}	V_{CC}=5.25V		–	2.4	4.4	mA
Input clamp voltage	V_{IK}	V_{CC}=4.75V, I_{IN}=−18mA		–	–	−1.5	V

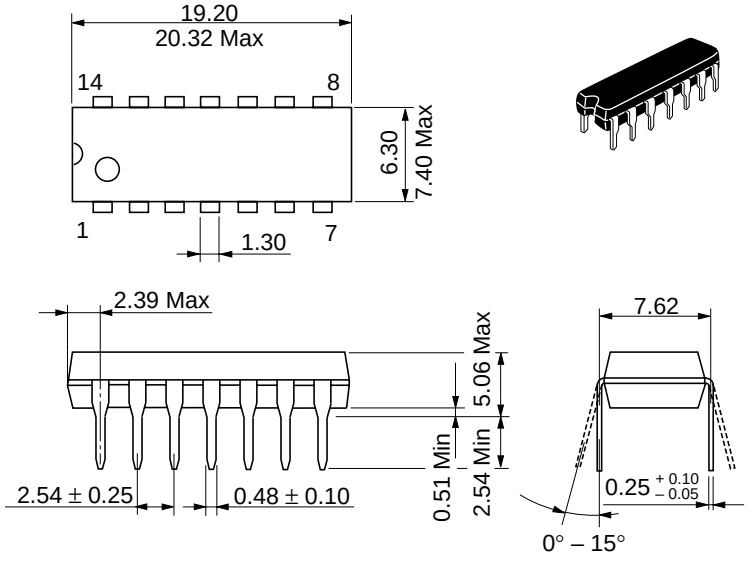
* V_{CC}=5V, Ta=25°C

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

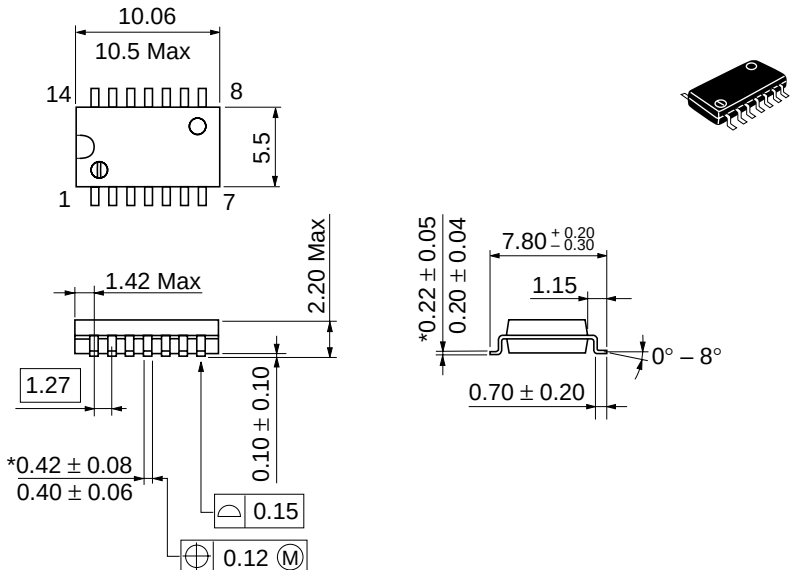
Item	Symbol	Test Conditions	min	typ	max	Unit
Propagation delay time	t_{PLH}	C_L=15pF, R_L=2kΩ	–	9	15	ns
	t_{PHL}		–	10	15	ns

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

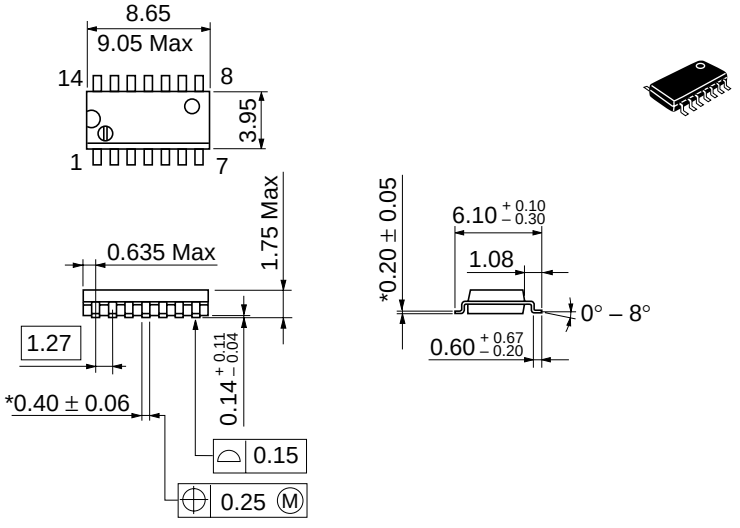
Unit: mm


19.20
20.32 Max
14
8
6.30
7.40 Max
1
1.30
7
2.39 Max
5.06 Max
0.51 Min
2.54 Min
2.54 ± 0.25
0.48 ± 0.10
7.62
0.25 +0.10 −0.05
0° – 15°

Unit: mm


10.06
10.5 Max
14
8
1
7
5.5
1.42 Max
2.20 Max
1.27
0.10 ± 0.10
*0.42 ± 0.08
0.40 ± 0.06
0.15
0.12 M
*0.22 ± 0.05
0.20 ± 0.04
7.80 +0.20 −0.30
1.15
0° – 8°
0.70 ± 0.20

Unit: mm


8.65
9.05 Max
14
8
3.95
1
7
1.75 Max
0.635 Max
1.27
*0.40 ± 0.06
0.14 +0.11 −0.04
0.15
0.25 M
*0.20 ± 0.05
6.10 +0.10 −0.30
1.08
0° – 8°
0.60 +0.67 −0.20

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