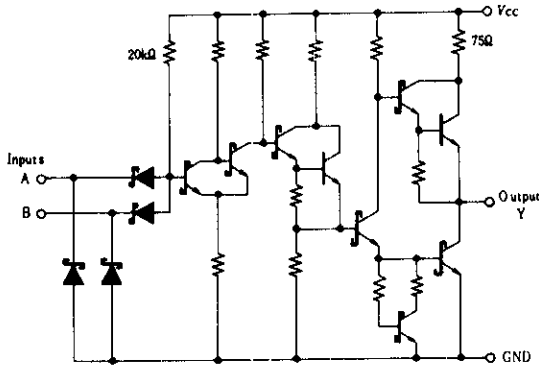


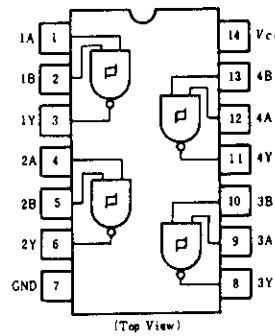
HD74LS132

● Quadruple 2-input Positive NAND Schmitt-triggers

■ CIRCUIT SCHEMATIC (1/4)



■ PIN ARRANGEMENT



■ ELECTRICAL CHARACTERISTICS (Ta = -20 ~ +75°C)

Item	Symbol	Test Conditions	min	typ*	max	Unit
Input threshold voltage	V_{T^+}	$V_{CC}=5V$	1.4	1.6	1.9	V
	V_{T^-}	$V_{CC}=5V$	0.5	0.7	1.0	V
Hysteresis	$V_{T^+} - V_{T^-}$	$V_{CC}=5V$	0.4	0.9	—	V
Output voltage	V_{OH}	$V_{CC}=4.75V, I_{OH}=-400\mu A, V_I=0.5V$	2.7	—	—	V
	V_{OL}	$V_{CC}=4.75V, V_I=1.9V, I_{OL}=8mA$	—	—	0.5	V
		$V_{CC}=4.75V, V_I=1.9V, I_{OL}=4mA$	—	—	0.4	V
Input threshold current	I_{T^+}	$V_{CC}=5V, V_I=V_{T^+}$	—	-0.14	—	mA
	I_{T^-}	$V_{CC}=5V, V_I=V_{T^-}$	—	-0.18	—	mA
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}	$V_{CC}=5.25V$	—	5.9	11	mA
	I_{CCL}	$V_{CC}=5.25V$	—	8.2	14	mA
Input clamp voltage	V_{IK}	$V_{CC}=4.75V, I_{IN}=-18mA$	—	—	-1.5	V

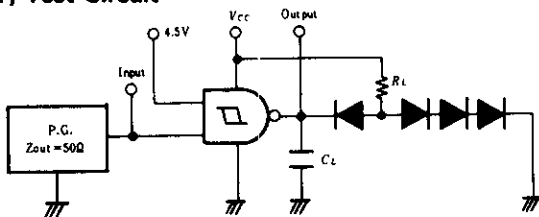
* $V_{CC}=5V, T_a=25^\circ C$

■ SWITCHING CHARACTERISTICS (VCC=5V, Ta=25°C)

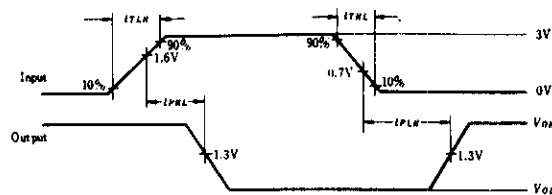
Item	Symbol	Test Conditions	min	typ	max	Unit
Propagation delay time	t_{PLH}	$C_L=15pF, R_L=2k\Omega$	—	15	22	ns
	t_{PHL}		—	15	22	ns

■ TESTING METHOD

1) Test Circuit

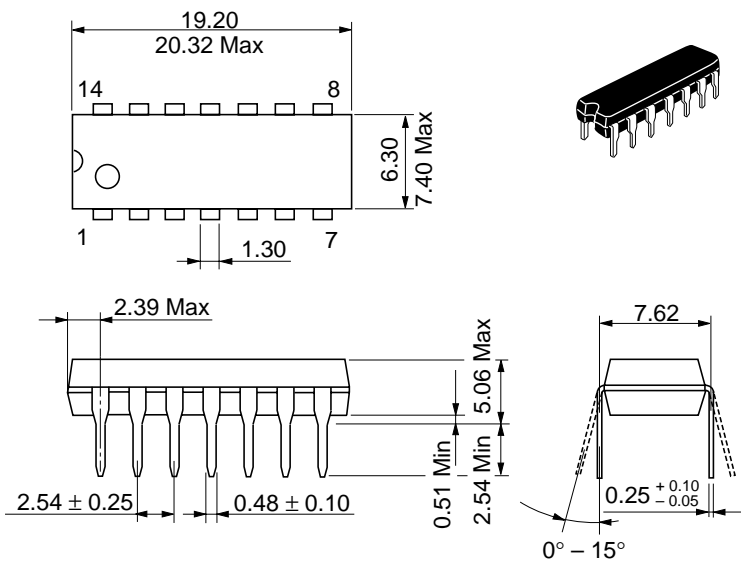


Waveform



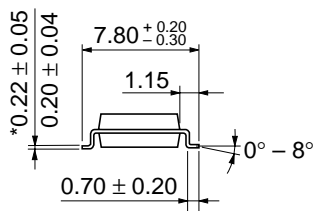
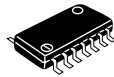
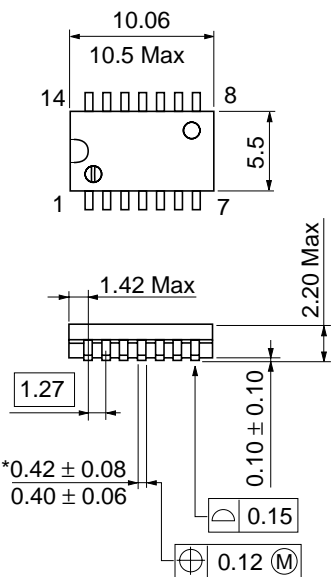
- Notes)
- C_L includes probe and jig capacitance.
 - All diodes are 1S2074 (Ⓜ).
 - Input pulse: $t_{TLH} \leq 15ns, t_{THL} \leq 6ns, PRR=1MHz, \text{duty cycle } 50\%$.

Unit: mm



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

Unit: mm

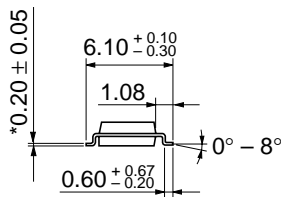
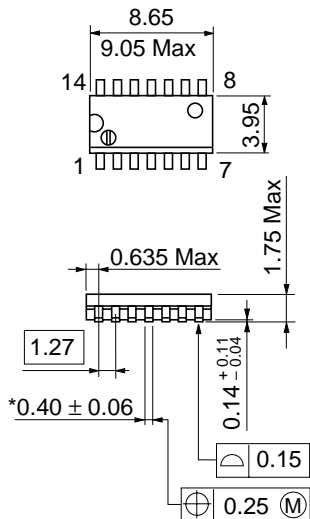


*Dimension including the plating thickness
Base material dimension

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

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Unit: mm



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

*Pd plating

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