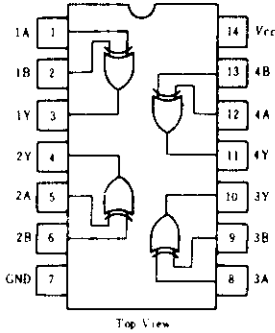


HD74LS386

●Quadruple 2-input Exclusive-OR Gates

PIN ARRANGEMENT



FUNCTION TABLE

Inputs		Output
A	B	
L	L	L
L	H	H
H	L	H
H	H	L

H: high level, L: low level.

ELECTRICAL CHARACTERISTICS (Ta=-20~+75°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}	$V_{CC}=4.75V, V_{IH}=2V, V_{IL}=0.8V, I_{OH}=-400\mu A$	2.7	—	—	V
	V_{OL}	$V_{CC}=4.75V, V_{IH}=2V, V_{IL}=0.8V$	$I_{OL}=4mA$	—	0.4	V
			$I_{OL}=8mA$	—	0.5	
Input current	I_{IH}	$V_{CC}=5.25V, V_I=2.7V$	—	—	40	μA
	I_{IL}	$V_{CC}=5.25V, V_I=0.4V$	—	—	-0.8	mA
	I_I	$V_{CC}=5.25V, V_I=7V$	—	—	0.2	mA
Short-circuit output current	I_{OS}	$V_{CC}=5.25V$	-20	—	100	mA
Supply current**	I_{CC}	$V_{CC}=5.25V$	—	6.1	10	mA
Input clamp voltage	V_{IX}	$V_{CC}=4.75V, I_{IX}=-18mA$	—	—	-1.5	V

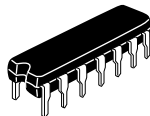
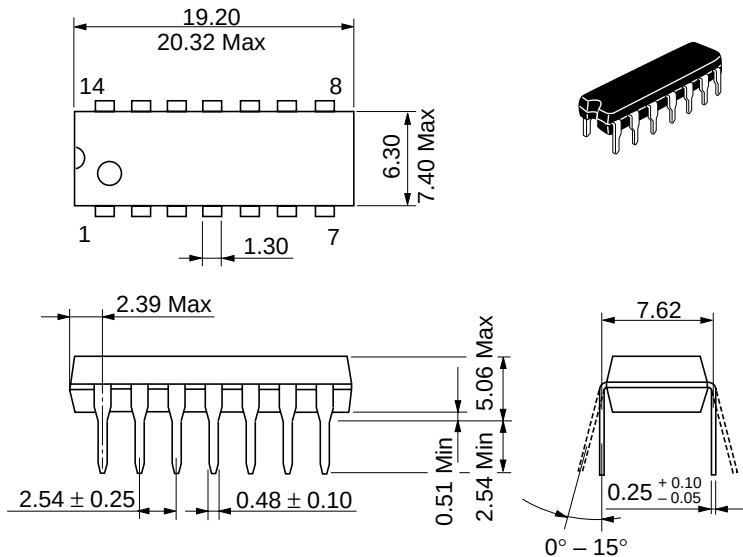
* $V_{CC}=5V, T_a=25^\circ C$

** I_{CC} is measured with all outputs open and all inputs grounded.

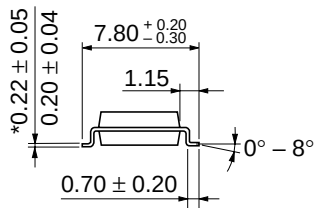
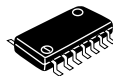
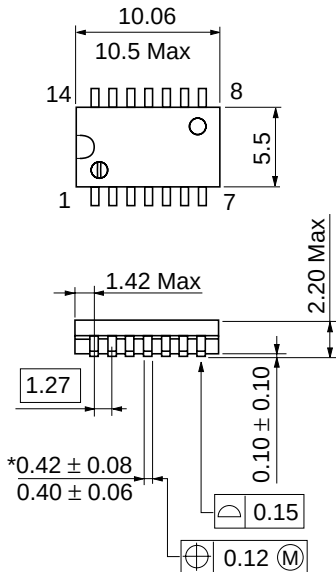
SWITCHING CHARACTERISTICS (VCC=5V, Ta=25°C)

Item	Symbol	Inputs	Test Conditions	min	typ	max	Unit	
Propagation delay time	t_{PLH}	A or B	Other inputs "L" $C_L = 15\text{pF}$, $R_L = 2\text{k}\Omega$	—	12	23	ns	
	t_{PHL}			—	10	17		
	t_{PLH}	A or B		Other inputs "H"	—	20	30	ns
	t_{PHL}				—	13	22	

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

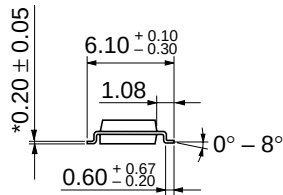
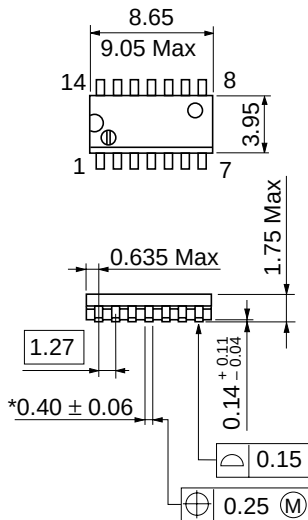


Hitachi Code	DP-14
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	0.97 g



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

*Dimension including the plating thickness
Base material dimension



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

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