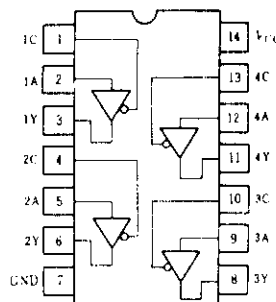


HD74LS125A • Quadruple Bus Buffer Gates (with three-state outputs)

PIN ARRANGEMENT



(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 ($T_a = -20 \sim +75^\circ\text{C}$)

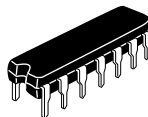
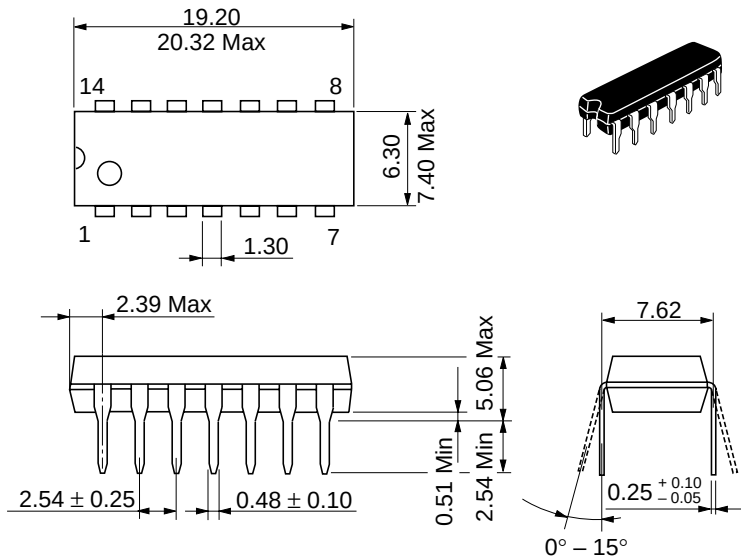
Item	Symbol	Test Conditions	min	typ*	max	Unit
Input voltage	V_{IH}		2.0	—	—	V
	V_{IL}		—	—	0.8	V
Output voltage	V_{OH}	$V_{CC}=4.75\text{V}$, $V_{IH}=2\text{V}$, $V_{IL}=0.8\text{V}$, $I_{OH}=-2.6\text{mA}$	2.4	—	—	V
	V_{OL}	$V_{CC}=4.75\text{V}$, $V_{IH}=2\text{V}$, $V_{IL}=0.8\text{V}$	$I_{OL}=24\text{mA}$	—	0.5	V
			$I_{OL}=12\text{mA}$	—	0.4	
	I_{OZ}	$V_{CC}=5.25\text{V}$, $V_{IH}=2\text{V}$, $V_{IL}=0.8\text{V}$	$V_O=2.4\text{V}$	—	20	μA
			$V_O=0.4\text{V}$	—	20	
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}	$V_{CC}=5.25\text{V}$	-40	—	225	mA
Supply current	I_{CC}	$V_{CC}=5.25\text{V}$	—	11	20	mA
Input clamp voltage	V_{IK}	$V_{CC}=4.75\text{V}$, $I_{IN}=-18\text{mA}$	—	—	-1.5	V

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

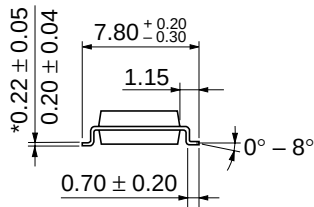
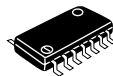
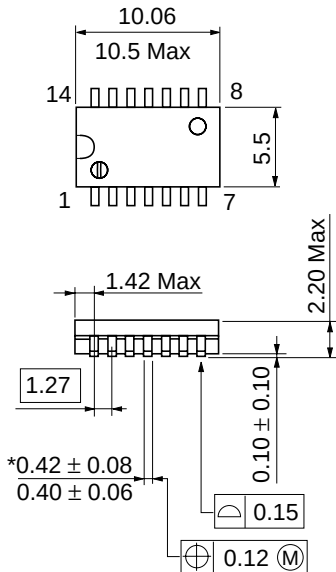
SWITCHING CHARACTERISTICS ($V_{CC}=5\text{V}$, $T_a=25^\circ\text{C}$)

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

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

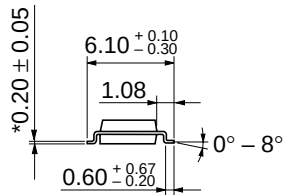
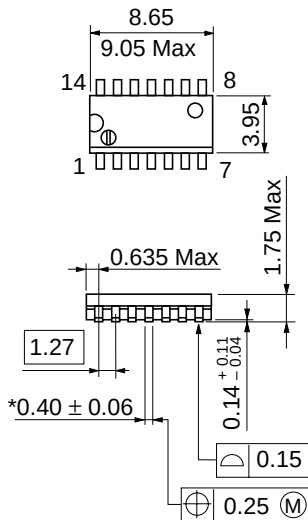


Hitachi Code	DP-14
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	0.97 g



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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