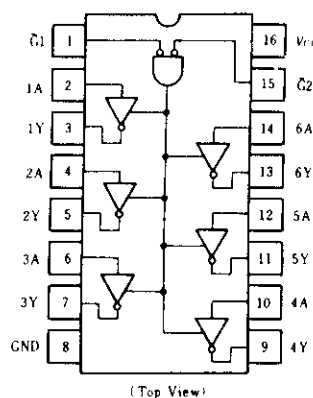


HD74LS366A ● Hex Bus Drivers (with three-state outputs)

PIN ARRANGEMENT



ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Ratings	Unit
Supply voltage	V_{CC}	7.0	V
Input voltage	V_{IN}	7.0	V
Output voltage (off-state)	$V_{O(off)}$	5.5	V
Operating temperature range	T_{op}	-20 ~ +75	°C
Storage temperature range	T_{stg}	-65 ~ +150	°C

FUNCTION TABLE

Inputs			Output
$\bar{G}_1$	$\bar{G}_2$	A	Y
H	X	X	Z
X	H	X	Z
L	L	H	L
L	L	L	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
Output current	I_{OH}	—	—	-2.6	mA
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	
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}	$V_{CC}=4.75\text{V}$, $V_{IH}=2\text{V}$, $V_{IL}=0.8\text{V}$	$I_{OL}=24\text{mA}$	—	—	
			$I_{OL}=12\text{mA}$	—	—	
				—	—	
Output current	I_{OZH}	$V_{CC}=5.25\text{V}$, $V_{IH}=2\text{V}$, $V_{IL}=0.8\text{V}$	$V_O=2.4\text{V}$	—	—	20
	I_{OZL}		$V_O=0.4\text{V}$	—	—	-20
Input current	I_{IH}	$V_{CC}=5.25\text{V}$, $V_{IH}=2.7\text{V}$	—	—	20	μA
	A inputs	$V_{CC}=5.25\text{V}$, $V_I=0.5\text{V}$, Either $\bar{G}$ inputs=2V	—	—	-20	μA
		$V_{CC}=5.25\text{V}$, $V_I=0.4\text{V}$, Both $\bar{G}$ inputs=0.4V	—	—	-0.4	mA
	$\bar{G}$ inputs	$V_{CC}=5.25\text{V}$, $V_I=0.4\text{V}$	—	—	-0.4	
	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}^{**}	$V_{CC}=5.25\text{V}$	—	12	21	mA
Input clamp voltage	V_{IK}	$V_{CC}=4.75\text{V}$, $I_{IK}=-18\text{mA}$	—	—	-1.5	V

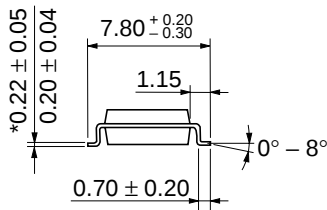
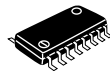
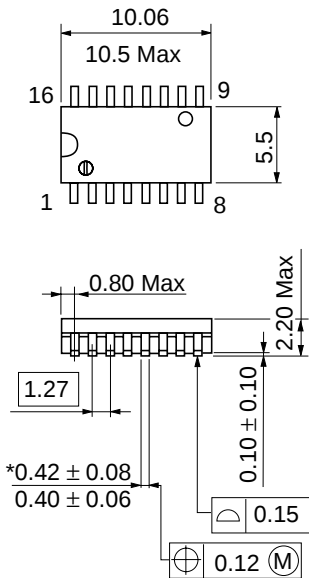
* $V_{CC}=5\text{V}$, $T_a=25^\circ\text{C}$

** I_{CC} is measured with data inputs grounded and output control inputs at 4.5V.

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

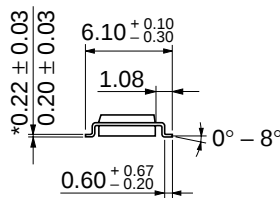
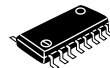
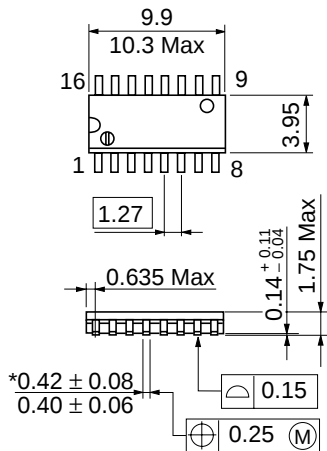
Item	Symbol	Test Conditions	min	typ	max	Unit
Propagation delay time	t_{PLH}	$C_L=45\text{pF}$ $R_L=667\Omega$	—	7	15	ns
	t_{PHL}		—	12	18	
Output enable time	t_{ZH}		—	18	35	
	t_{ZL}		—	28	45	
Output disable time	t_{HZ}	$C_L=5\text{pF}$	—	—	32	
	t_{LZ}	$R_L=667\Omega$	—	—	35	

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



*Dimension including the plating thickness
Base material dimension

Hitachi Code	FP-16DA
JEDEC	—
EIAJ	Conforms
Weight (reference value)	0.24 g



*Dimension including the plating thickness
Base material dimension

Hitachi Code	FP-16DN
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	0.15 g

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