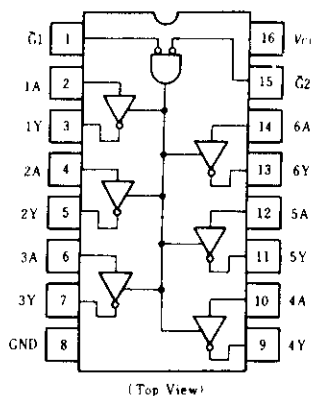


HD74LS366A ● Hex Bus Drivers (with three-state outputs)

■ 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}	$V_{CC} = 4.75\text{V}$, $V_{IH} = 2\text{V}$, $V_{IL} = 0.8\text{V}$	$I_{OL} = 24\text{mA}$	—	—		0.5
$I_{OL} = 12\text{mA}$			—	—	0.4		
Output current	I_{OZH}	$V_{CC} = 5.25\text{V}$, $V_{IH} = 2\text{V}$,	—	—	20	μA	
	I_{OZL}	$V_{IL} = 0.8\text{V}$					$V_o = 2.4\text{V}$
Input current	A inputs	I_{IH}	$V_{CC} = 5.25\text{V}$, $V_{IH} = 2.7\text{V}$	—	—	20	μA
		I_{IL}	$V_{CC} = 5.25\text{V}$, $V_I = 0.5\text{V}$, Either \bar{G} inputs = 2V	—	—	-20	μA
	\bar{G} inputs		$V_{CC} = 5.25\text{V}$, $V_I = 0.4\text{V}$, Both \bar{G} inputs = 0.4V	—	—	-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}^{**}	$V_{CC} = 5.25\text{V}$	—	12	21	mA	
Input clamp voltage	V_{IK}	$V_{CC} = 4.75\text{V}$, $I_{IK} = -18\text{mA}$	—	—	-1.5	V	

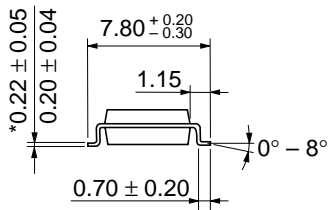
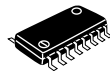
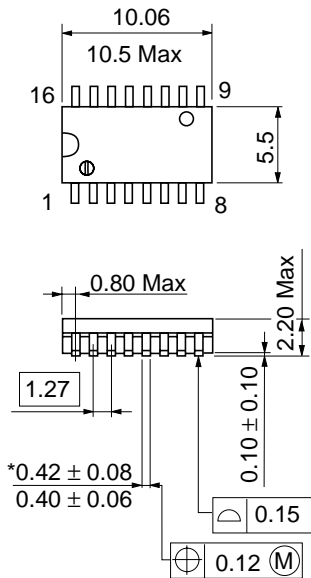
* $V_{CC} = 5\text{V}$, $T_a = 25^\circ\text{C}$

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

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

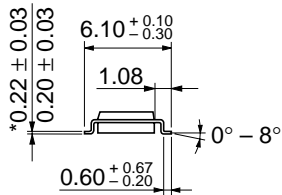
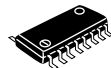
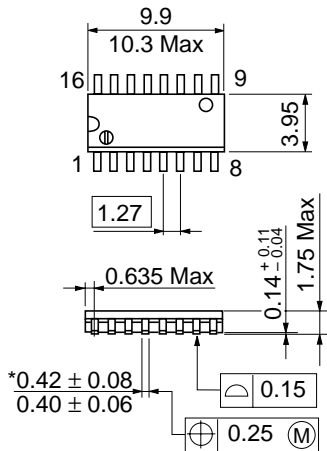
Item	Symbol	Test Conditions	min	typ	max	Unit
Propagation delay time	t_{PLH}	$C_L = 45\text{pF}$ $R_L = 667\Omega$	—	7	15	ns
	t_{PHL}		—	12	18	
Output enable time	t_{ZH}	$C_L = 5\text{pF}$ $R_L = 667\Omega$	—	18	35	
	t_{ZL}		—	28	45	
Output disable time	t_{HZ}	$C_L = 5\text{pF}$ $R_L = 667\Omega$	—	—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

Hitachi, Ltd.

Semiconductor & Integrated Circuits.
Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan
Tel: Tokyo (03) 3270-2111 Fax: (03) 3270-5109

URL North America : <http://semiconductor.hitachi.com/>
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For further information write to:

Hitachi Semiconductor
(America) Inc.
179 East Tasman Drive,
San Jose, CA 95134
Tel: <1> (408) 433-1990
Fax: <1> (408) 433-0223

Hitachi Europe GmbH
Electronic components Group
Dornacher Straße 3
D-85622 Feldkirchen, Munich
Germany
Tel: <49> (89) 9 9180-0
Fax: <49> (89) 9 29 30 00

Hitachi Europe Ltd.
Electronic Components Group.
Whitebrook Park
Lower Cookham Road
Maidenhead
Berkshire SL6 8YA, United Kingdom
Tel: <44> (1628) 585000
Fax: <44> (1628) 778322

Hitachi Asia Pte. Ltd.
16 Collyer Quay #20-00
Hitachi Tower
Singapore 049318
Tel: 535-2100
Fax: 535-1533

Hitachi Asia Ltd.
Taipei Branch Office
3F, Hung Kuo Building, No.167,
Tun-Hwa North Road, Taipei (105)
Tel: <886> (2) 2718-3666
Fax: <886> (2) 2718-8180

Hitachi Asia (Hong Kong) Ltd.
Group III (Electronic Components)
7/F., North Tower, World Finance Centre,
Harbour City, Canton Road, Tsim Sha Tsui,
Kowloon, Hong Kong
Tel: <852> (2) 735 9218
Fax: <852> (2) 730 0281
Telex: 40815 HITEC HX

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