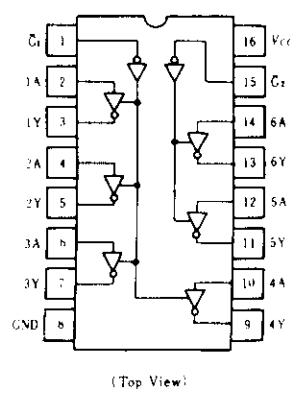


HD74LS368A

●Hex Bus Drivers (inverted data outputs with three-state outputs)

PIN ARRANGEMENT



ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Ratings	Unit
Supply voltage	V_{CC}	7.0	V
Input voltage	V_{IS}	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

$\bar{C}$	A	Y
H	X	Z
L	L	H
L	H	L

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}	$V_{CC}=4.75\text{V}$, $V_{IH}=2\text{V}$, $V_{IL}=0.8\text{V}$	$I_{OL}=12\text{mA}$	—	—		0.4
			$I_{OL}=24\text{mA}$				0.5
Output current	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	
	A inputs	$V_{CC}=5.25\text{V}$, $V_I=0.5\text{V}$, $\bar{G}$ input at 2V	—	—	-20	μA	
		I_{IL}	$V_{CC}=5.25\text{V}$, $V_I=0.4\text{V}$, $\bar{G}$ inputs at 0.4V	—	—	-0.4	mA
			$V_{CC}=5.25\text{V}$, $V_I=0.4\text{V}$	—	—	-0.4	
	$\bar{G}$ 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}	$V_{CC}=5.25\text{V}$, $I_{IH}=-18\text{mA}$	—	—	-1.5	V	

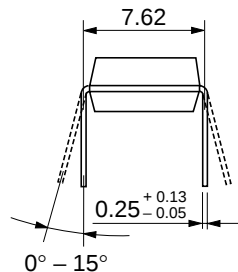
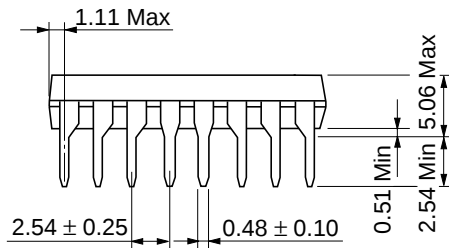
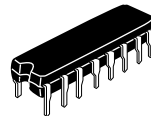
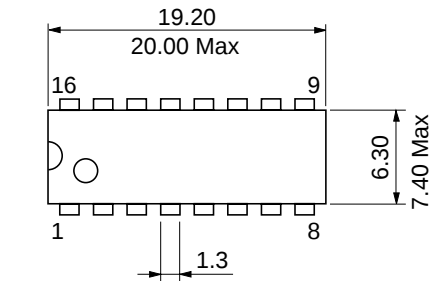
* $V_{CC} = 5\text{V}$, $T_a = 25^\circ\text{C}$

** With all outputs open, I_{CC} is measured with all inputs grounded and all $\bar{G}$ inputs at 4.5V.

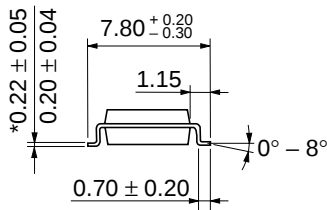
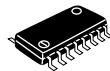
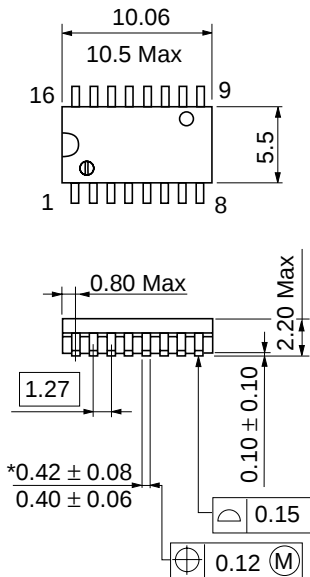
■ SWITCHING CHARACTERISTICS ($V_{CC} = 5\text{V}$, $T_a = 25^\circ\text{C}$)

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}	$C_L = 5\text{pF}$, $R_L = 667\Omega$	—	—	32	
	t_{LZ}		—	—	35	

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

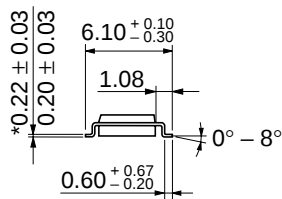
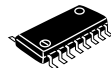
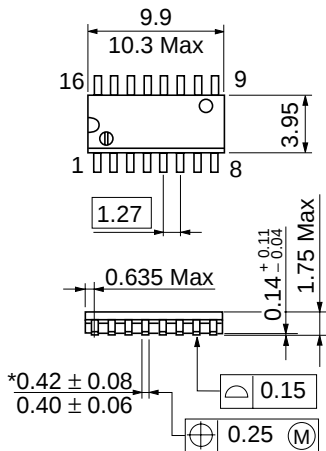


Hitachi Code	DP-16
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	1.07 g



*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, 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

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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
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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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