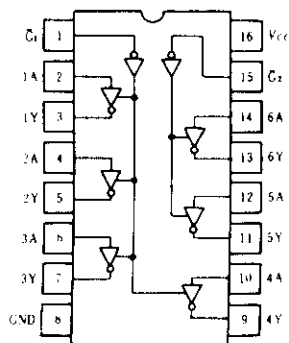


HD74LS368A ●Hex Bus Drivers (inverted data outputs with three-state outputs)

■ PIN ARRANGEMENT



(Top View)

■ 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{G}	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}	$V_{CC} = 4.75\text{V}, V_{IH} = 2\text{V}, V_{IL} = 0.8\text{V}$			0.4		
Output current	I_{OZ}	$V_{CC} = 5.25\text{V}, V_{IH} = 2\text{V}, V_{IL} = 0.8\text{V}$	$I_{OL} = 12\text{mA}$	—	—	20	μA
			$I_{OL} = 24\text{mA}$	—	—	-20	
Input current	A inputs	I_{IH}	$V_{CC} = 5.25\text{V}, V_I = 2.7\text{V}$	—	—	20	μA
		I_{IL}	$V_{CC} = 5.25\text{V}, V_I = 0.5\text{V}, \bar{G}$ input at 2V	—	—	-20	μA
	\bar{G} inputs	I_{IL}	$V_{CC} = 5.25\text{V}, V_I = 0.4\text{V}, \bar{G}$ inputs at 0.4V	—	—	-0.4	mA
		I_{IL}	$V_{CC} = 5.25\text{V}, V_I = 0.4\text{V}$	—	—	-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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