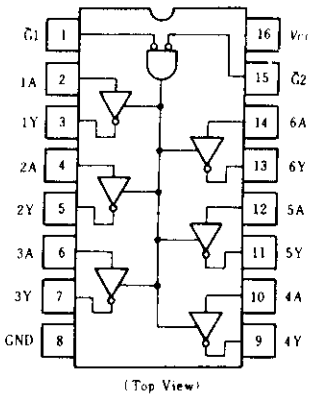
HD74LS366A ●Hex Bus Drivers (with three-state outputs)

■PIN ARRANGEMENT



(Top View)

■ABSOLUTE MAXIMUM RATINGS

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

■FUNCTION TABLE

Inputs			Output
$\overline{G}_1$	$\overline{G}_2$	A	Y
H	×	×	Z
×	H	×	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 (Ta=−20～+75°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}=4.75V, V_{IH}=2V, V_{IL}=0.8V, I_{OH}=−2.6mA		2.4	—	—	V
		V_{OL}	V_{CC}=4.75V, V_{IH}=2V,	I_{OL}=24mA	—	—	0.5	
			V_{IL}=0.8V	I_{OL}=12mA	—	—	0.4	
Output current		I_{OZH}	V_{CC}=5.25V, V_{IH}=2V,	V_O=2.4V	—	—	20	μA
		I_{OZL}	V_{IL}=0.8V	V_O=0.4V	—	—	−20	
Input current		I_{IH}	V_{CC}=5.25V, V_{IH}=2.7V		—	—	20	μA
	A inputs	I_{IL}	V_{CC}=5.25V, V_I=0.5V, Either $\overline{G}$ inputs=2V		—	—	−20	μA
			V_{CC}=5.25V, V_I=0.4V, Both $\overline{G}$ inputs=0.4V		—	—	−0.4	mA
	$\overline{G}$ inputs		V_{CC}=5.25V, V_I=0.4V		—	—	−0.4	
		I_I	V_{CC}=5.25V, V_I=7V		—	—	0.1	mA
Short-circuit output current		I_{OS}	V_{CC}=5.25V		−40	—	−225	mA
Supply current		I_{CC}**	V_{CC}=5.25V		—	12	21	mA
Input clamp voltage		V_{IK}	V_{CC}=4.75V, I_{IN}=−18mA		—	—	−1.5	V

* V_{CC}=5V, Ta=25°C

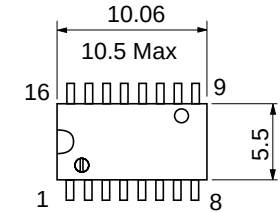
** I_{CC} is measured with data inputs grounded and output control inputs at 4.5V.

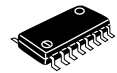
■SWITCHING CHARACTERISTICS (V_{CC}=5V, Ta=25°C)

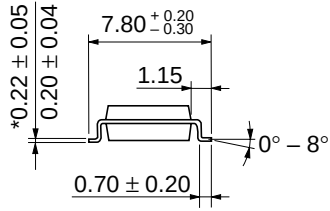
Item	Symbol	Test Conditions	min	typ	max	Unit
Propagation delay time	t_{PLH}	C_L=45pF R_L=667Ω	—	7	15	ns
	t_{PHL}		—	12	18	
Output enable time	t_{ZH}		—	18	35	
	t_{ZL}		—	28	45	
Output disable time	t_{HZ}	C_L=5pF R_L=667Ω	—	—	32	
	t_{LZ}		—	—	35	

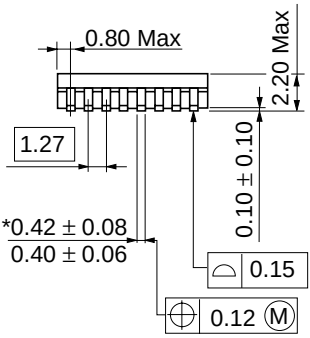
Note) Refer to Test Circuit and Waveform of the Common Item

Unit: mm





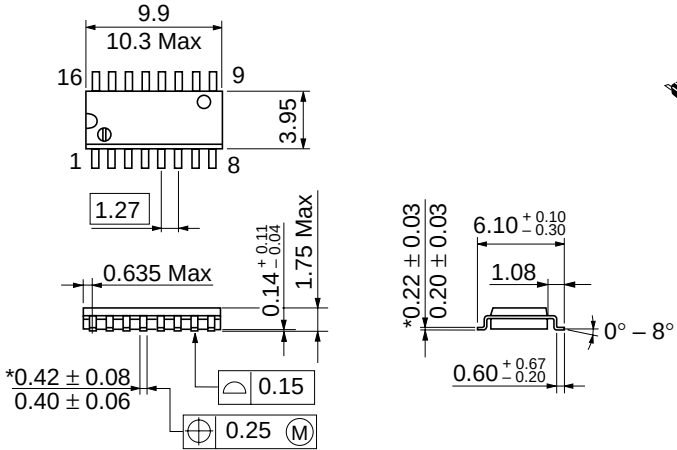


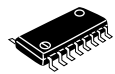


*Dimension including the plating thickness
Base material dimension

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

Unit: mm





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

*Dimension including the plating thickness
Base material dimension

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