

HD74AC368/HD74ACT368

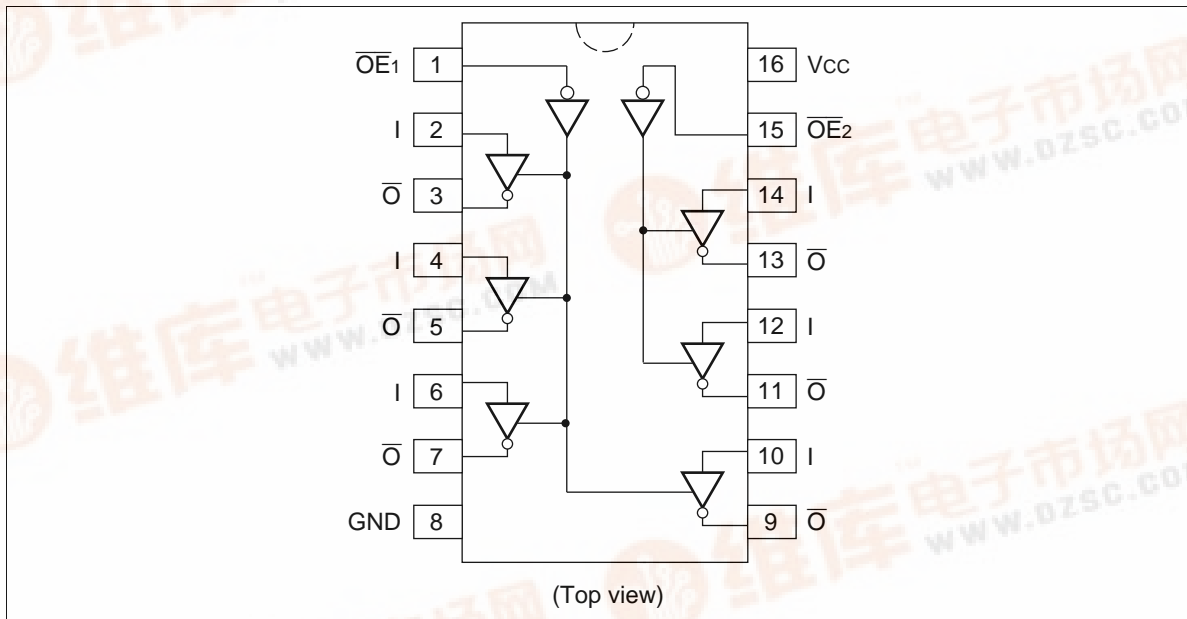
Hex Inverter Buffer with 3-State Output

HITACHI

Features

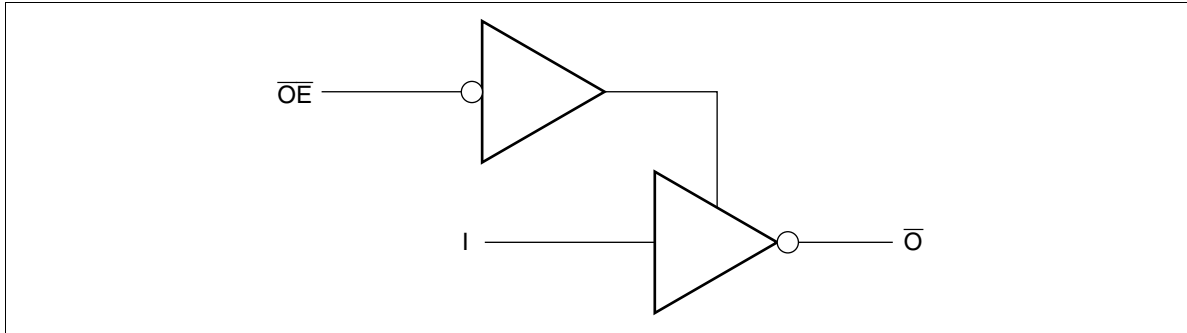
- 3-State Outputs Drive Bus Lines or Buffer Memory Address Registers
- Outputs Source/Sink 24 mA
- HD74ACT368 has TTL-Compatible Inputs

Pin Arrangement



HD74AC368/HD74ACT368

Logic Symbol



Pin Names

$\overline{OE}_1, \overline{OE}_2$	3-State Output: Enable Input (Active Low)
I	Inputs
\overline{O}	Outputs

Truth Table

Inputs		Output
\overline{OE}	I	\overline{O}
L	L	L
L	H	H
H	X	Z

H : High Voltage Level

L : Low Voltage Level

X : Immaterial

Z : High Impedance

DC Characteristics (unless otherwise specified)

Item	Symbol	Max	Unit	Condition
Maximum quiescent supply current	I_{CC}	80	μA	$V_{IN} = V_{CC}$ or ground, $V_{CC} = 5.5 V$, $T_a = \text{Worst case}$
Maximum quiescent supply current	I_{CC}	8.0	μA	$V_{IN} = V_{CC}$ or ground, $V_{CC} = 5.5 V$, $T_a = 25^\circ C$
Maximum I_{CC}/input (HD74ACT368)	I_{CCT}	1.5	mA	$V_{IN} = V_{CC} - 2.1 V$, $V_{CC} = 5.5 V$, $T_a = \text{Worst case}$

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AC Characteristics: HD74AC368

Item	Symbol	V _{CC} (V) ^{*1}	Ta = +25°C C _L = 50 pF			Ta = -40°C to +85°C C _L = 50 pF		Unit
			Min	Typ	Max	Min	Max	
Propagation delay	t _{PLH}	3.3	1.0	7.0	9.0	1.0	10.0	ns
		5.0	1.0	5.0	7.0	1.0	7.5	
Propagation delay	t _{PHL}	3.3	1.0	7.0	9.0	1.0	10.0	ns
		5.0	1.0	4.5	7.0	1.0	7.5	
Enable time	t _{PZH}	3.3	1.0	9.0	13.0	1.0	13.5	ns
		5.0	1.0	7.0	9.5	1.0	10.0	
Enable time	t _{PZL}	3.3	1.0	10.0	12.5	1.0	13.5	ns
		5.0	1.0	7.5	10.0	1.0	10.5	
Disable time	t _{PHZ}	3.3	1.0	9.5	12.0	1.0	12.5	ns
		5.0	1.0	7.5	10.0	1.0	10.5	
Disable time	t _{PLZ}	3.3	1.0	9.0	12.5	1.0	13.5	ns
		5.0	1.0	7.0	10.0	1.0	10.5	

Note: 1. Voltage Range 3.3 is 3.3 V ± 0.3 V
Voltage Range 5.0 is 5.0 V ± 0.5 V

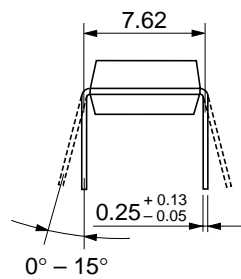
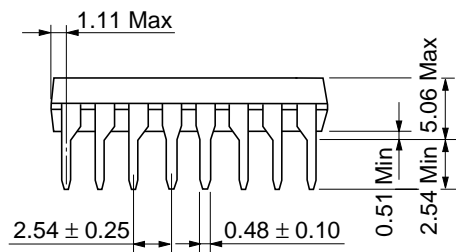
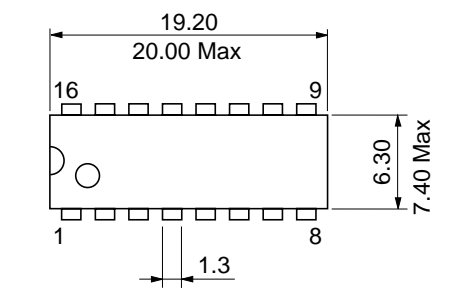
AC Characteristics: HD74ACT368

Item	Symbol	V _{CC} (V) ^{*1}	Ta = +25°C C _L = 50 pF			Ta = -40°C to +85°C C _L = 50 pF		Unit
			Min	Typ	Max	Min	Max	
Propagation delay	t _{PLH}	5.0	1.0	6.5	9.0	1.0	10.0	ns
Propagation delay	t _{PHL}	5.0	1.0	6.0	9.0	1.0	10.0	ns
Enable time	t _{PZH}	5.0	1.0	8.0	10.0	1.0	11.0	ns
Enable time	t _{PZL}	5.0	1.0	8.0	12.0	1.0	13.0	ns
Disable time	t _{PHZ}	5.0	1.0	9.0	12.0	1.0	13.0	ns
Disable time	t _{PLZ}	5.0	1.0	8.5	11.0	1.0	12.0	ns

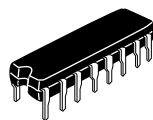
Note: 1. Voltage Range 5.0 is 5.0 V ± 0.5 V

Capacitance

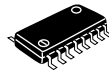
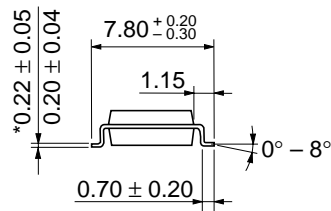
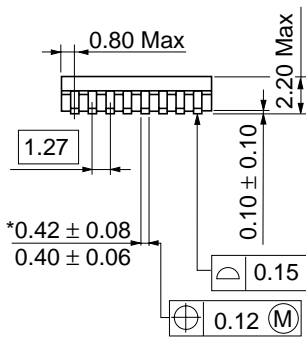
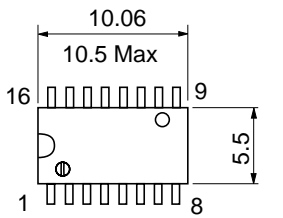
Item	Symbol	Typ	Unit	Condition
Input capacitance	C _{IN}	4.5	pF	V _{CC} = 5.5 V
Power dissipation capacitance	C _{PD}	40.0	pF	V _{CC} = 5.0 V



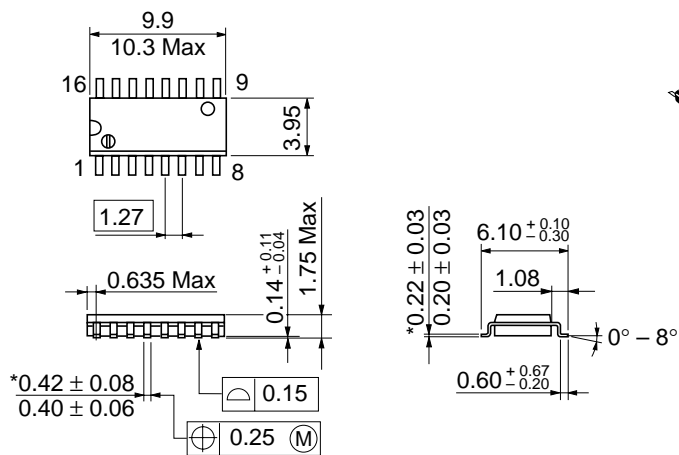
Unit: mm



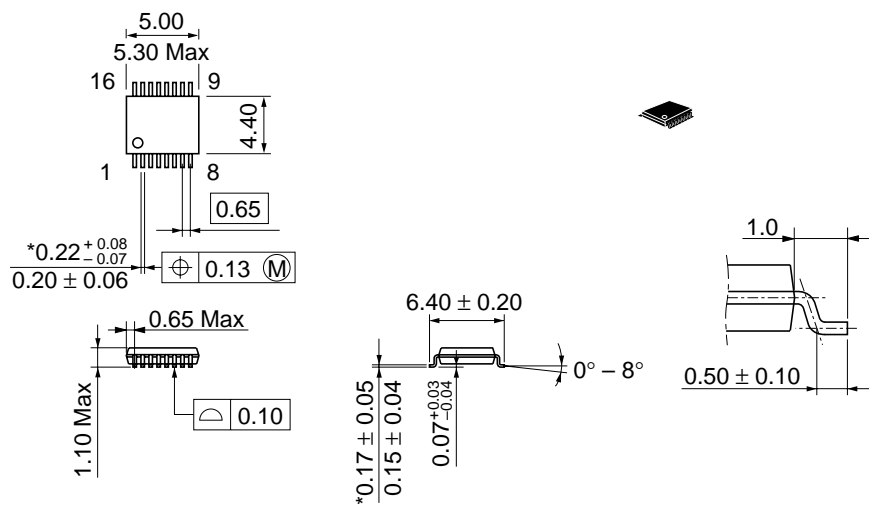
Unit: mm



Unit: mm



Unit: mm



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