

# HD74AC365/HD74ACT365

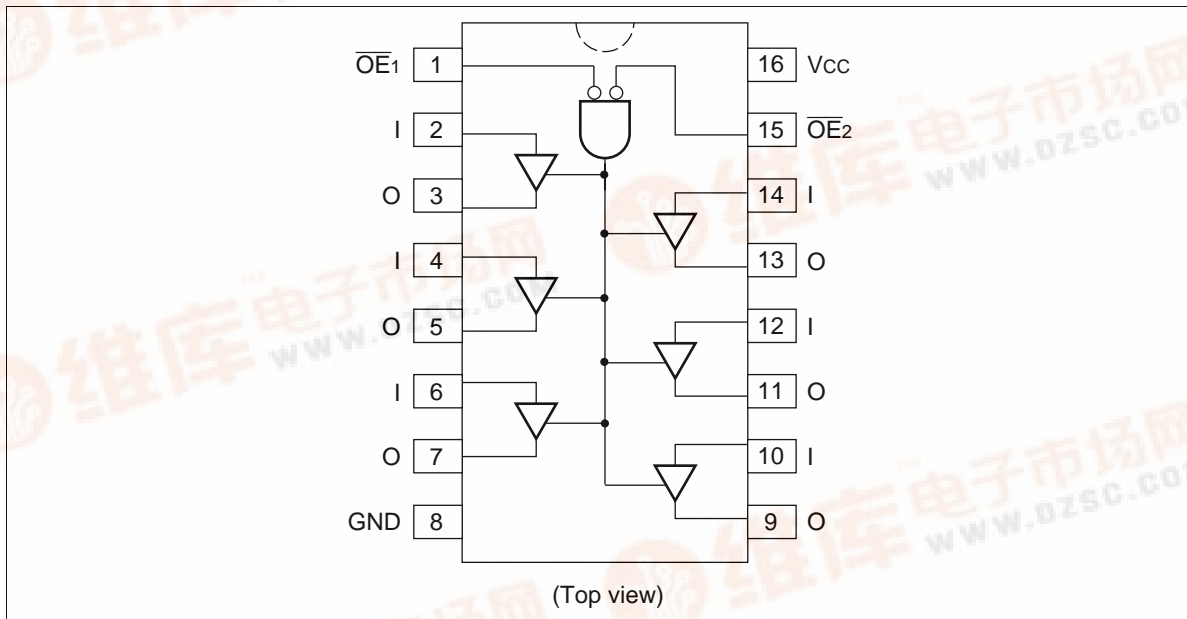
Hex Buffer/Driver with 3-State Output

# HITACHI

## Features

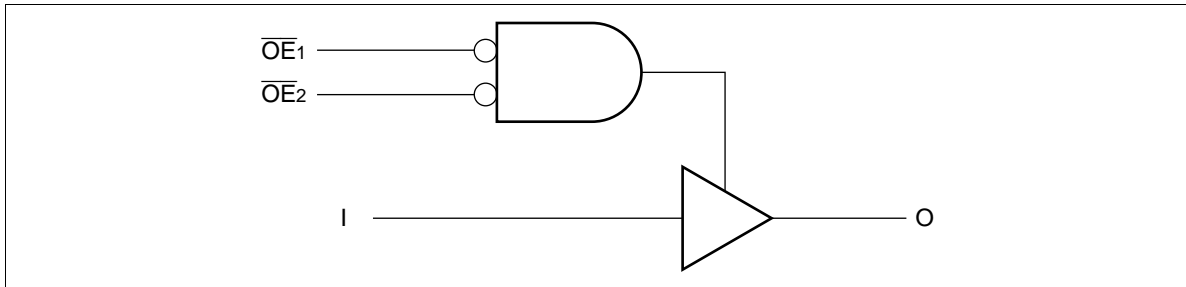
- 3-State Outputs Drive Bus Lines or Buffer Memory Address Registers
- Outputs Source/Sink 24 mA
- HD74ACT365 has TTL-Compatible Inputs

## Pin Arrangement



## HD74AC365/HD74ACT365

### Logic Symbol



### Pin Names

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

### Truth Table

Inputs			Output
$\overline{OE}_1$	$\overline{OE}_2$	I	O
L	L	L	L
L	L	H	H
X	H	X	Z
H	X	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	$\mu A$	$V_{IN} = V_{CC}$ or ground, $V_{CC} = 5.5 V$ , $T_a = \text{Worst case}$
Maximum quiescent supply current	$I_{CC}$	8.0	$\mu A$	$V_{IN} = V_{CC}$ or ground, $V_{CC} = 5.5 V$ , $T_a = 25^\circ C$
Maximum $I_{CC}/\text{input}$ (HD74ACT365)	$I_{CCT}$	1.5	mA	$V_{IN} = V_{CC} - 2.1 V$ , $V_{CC} = 5.5 V$ , $T_a = \text{Worst case}$

## HD74AC365/HD74ACT365

### AC Characteristics: HD74AC365

Item	Symbol	V <sub>CC</sub> (V) <sup>*1</sup>	Ta = +25°C C <sub>L</sub> = 50 pF			Ta = -40°C to +85°C C <sub>L</sub> = 50 pF		Unit
			Min	Typ	Max	Min	Max	
Propagation delay	t <sub>PLH</sub>	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 <sub>PHL</sub>	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	
Enable time	t <sub>PZH</sub>	3.3	1.0	9.0	12.5	1.0	13.0	ns
		5.0	1.0	7.0	9.0	1.0	9.5	
Enable time	t <sub>PZL</sub>	3.3	1.0	10.0	12.5	1.0	13.5	ns
		5.0	1.0	8.0	10.0	1.0	10.5	
Disable time	t <sub>PHZ</sub>	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 <sub>PLZ</sub>	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

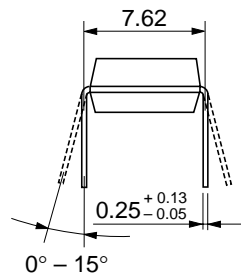
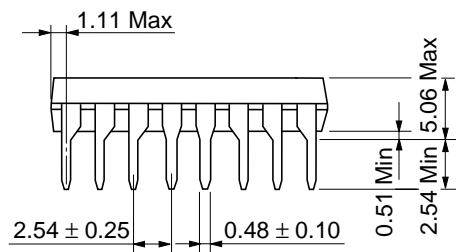
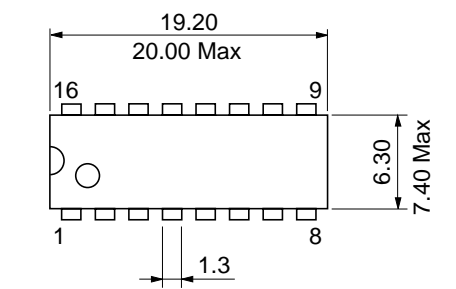
### AC Characteristics: HD74ACT365

Item	Symbol	V <sub>CC</sub> (V) <sup>*1</sup>	Ta = +25°C C <sub>L</sub> = 50 pF			Ta = -40°C to +85°C C <sub>L</sub> = 50 pF		Unit
			Min	Typ	Max	Min	Max	
Propagation delay	t <sub>PLH</sub>	5.0	1.0	6.5	9.0	1.0	10.0	ns
Propagation delay	t <sub>PHL</sub>	5.0	1.0	6.5	9.0	1.0	10.0	ns
Enable time	t <sub>PZH</sub>	5.0	1.0	8.0	10.5	1.0	11.0	ns
Enable time	t <sub>PZL</sub>	5.0	1.0	9.5	12.0	1.0	13.0	ns
Disable time	t <sub>PHZ</sub>	5.0	1.0	9.5	12.0	1.0	13.0	ns
Disable time	t <sub>PLZ</sub>	5.0	1.0	8.0	10.5	1.0	11.5	ns

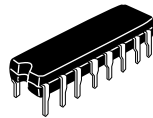
Note: 1. Voltage Range 5.0 is 5.0 V ± 0.5 V

### Capacitance

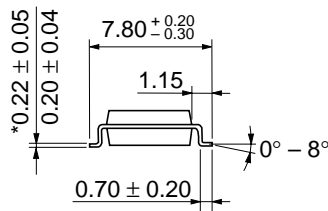
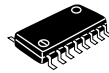
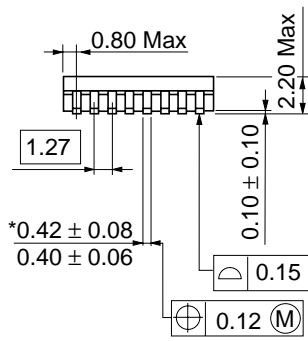
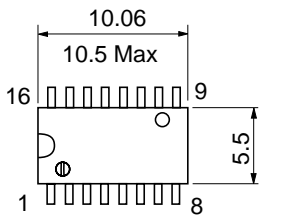
Item	Symbol	Typ	Unit	Condition
Input capacitance	C <sub>IN</sub>	4.5	pF	V <sub>CC</sub> = 5.5 V
Power dissipation capacitance	C <sub>PD</sub>	45.0	pF	V <sub>CC</sub> = 5.0 V



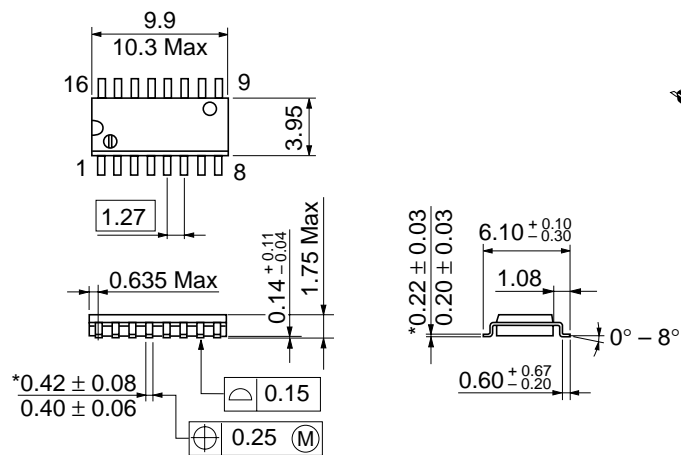
Unit: mm



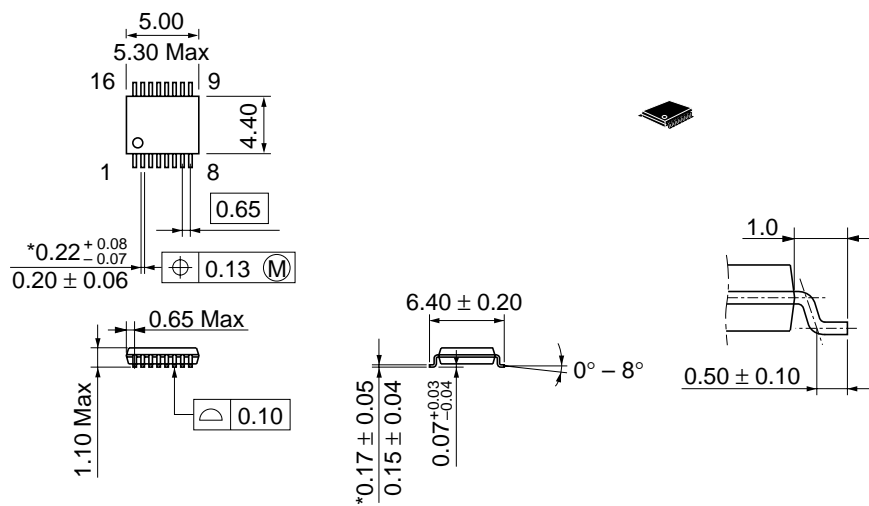
Unit: mm



Unit: mm



Unit: mm



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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      NorthAmerica      : <http://semiconductor.hitachi.com/>  
             Europe                 : <http://www.hitachi-eu.com/hel/ecg>  
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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 StraÙe 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