HD74AC366/HD74ACT366

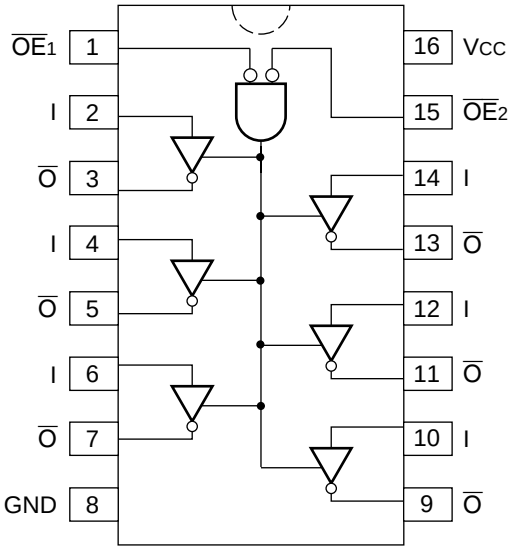
Hex Inverter Buffer with 3-State Output

HITACHI

Features

- 3-State Outputs Drive Bus Lines or Buffer Memory Address Registers
- Outputs Source/Sink 24 mA
- HD74ACT366 has TTL-Compatible Inputs

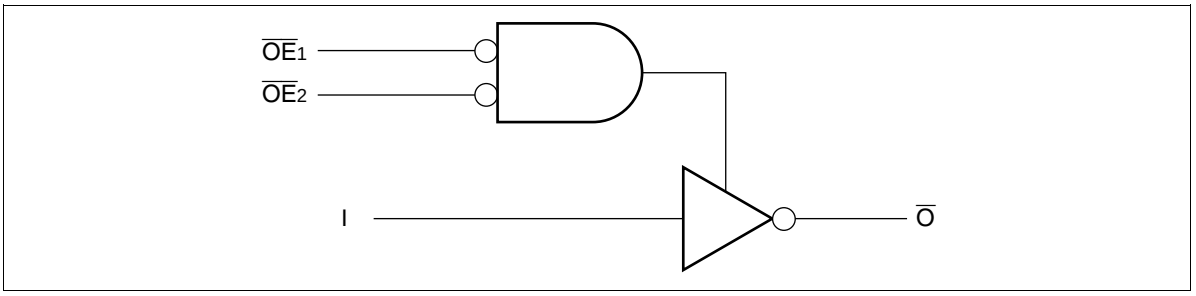
Pin Arrangement



(Top view)

Hitachi semiconductor

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
$\overline{OE}_1$	$\overline{OE}_2$	I	$\overline{O}$
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	µA	V_{IN} = V_{CC} or ground, V_{CC} = 5.5 V, Ta = Worst case
Maximum quiescent supply current	I_{CC}	8.0	µA	V_{IN} = V_{CC} or ground, V_{CC} = 5.5 V, Ta = 25°C
Maximum I_{CC}/input (HD74ACT366)	I_{CCT}	1.5	mA	V_{IN} = V_{CC} – 2.1 V, V_{CC} = 5.5 V, Ta = Worst case

AC Characteristics: HD74AC366

			Ta = +25°C C_L = 50 pF			Ta = –40°C to +85°C C_L = 50 pF		
Item	**Symbol**	**V_{CC} (V)*[1]**	**Min**	**Typ**	**Max**	**Min**	**Max**	**Unit**
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	9.5	1.0	10.0	
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: HD74ACT366

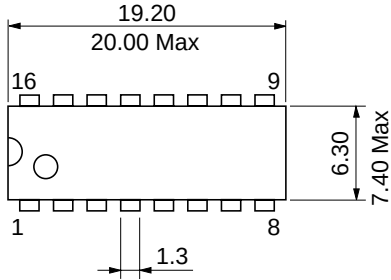
			Ta = +25°C C_L = 50 pF			Ta = –40°C to +85°C C_L = 50 pF		
Item	**Symbol**	**V_{CC} (V)*[1]**	**Min**	**Typ**	**Max**	**Min**	**Max**	**Unit**
Propagation delay	t_{PLH}	5.0	1.0	6.5	9.0	1.0	10.0	ns
Propagation delay	t_{PHL}	5.0	1.0	6.0	9.0	1.0	10.0	ns
Enable time	t_{PZH}	5.0	1.0	8.0	10.0	1.0	11.0	ns
Enable time	t_{PZL}	5.0	1.0	8.0	10.0	1.0	11.0	ns
Disable time	t_{PHZ}	5.0	1.0	9.0	11.0	1.0	12.0	ns
Disable time	t_{PLZ}	5.0	1.0	8.5	11.0	1.0	12.0	ns

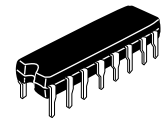
Note: 1. Voltage Range 5.0 is 5.0 V ± 0.5 V

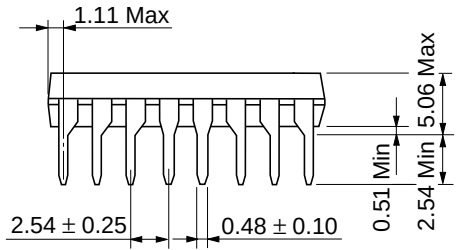
Capacitance

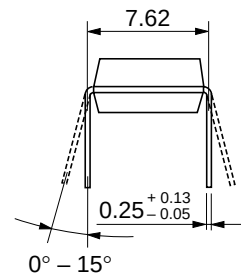
Item	**Symbol**	**Typ**	**Unit**	**Condition**
Input capacitance	C_{IN}	4.5	pF	V_{CC} = 5.5 V
Power dissipation capacitance	C_{PD}	40.0	pF	V_{CC} = 5.0 V

Unit: mm



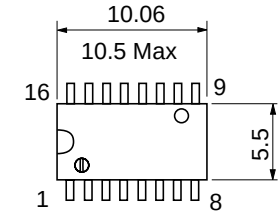


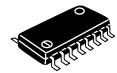


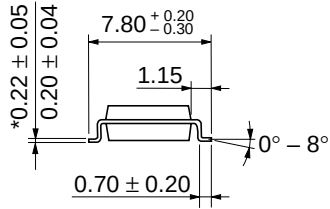


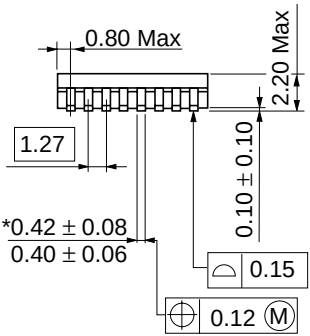
Hitachi Code	DP-16
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	1.07 g

Unit: mm





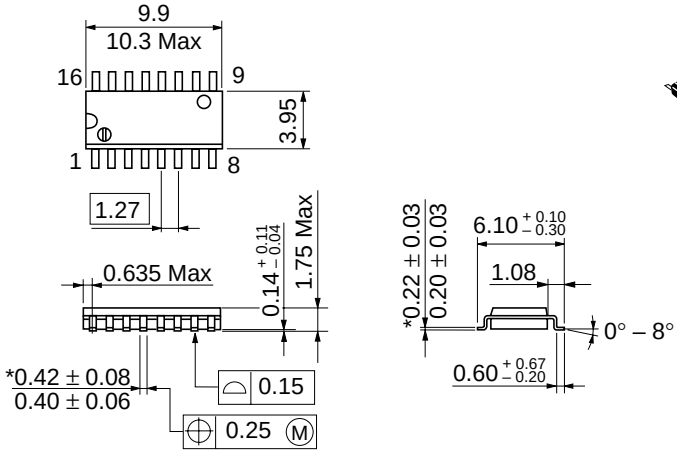




*Dimension including the plating thickness
Base material dimension

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

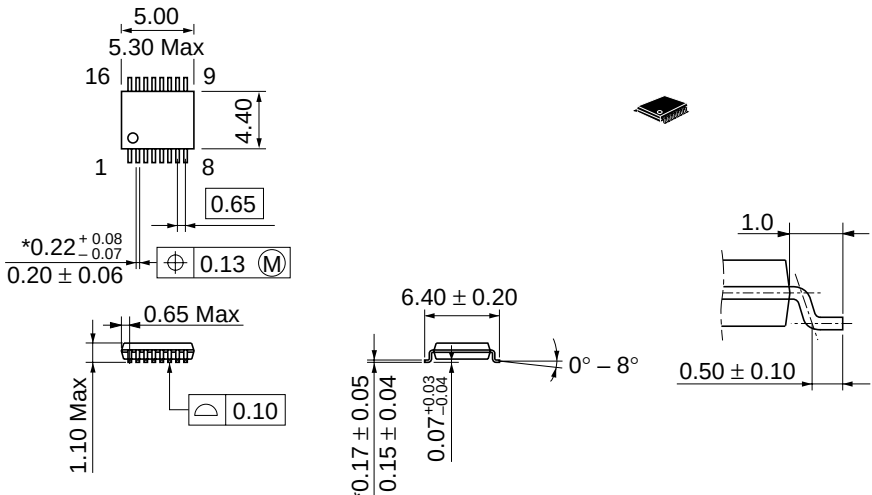
Unit: mm



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

*Dimension including the plating thickness
Base material dimension

Unit: mm



Hitachi Code	TTP-16DA
JEDEC	—
EIAJ	—
Weight (reference value)	0.05 g

*Dimension including the plating thickness
Base material dimension

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