HD74AC86/HD74ACT86

Quad 2-Input Exclusive-OR-Gate

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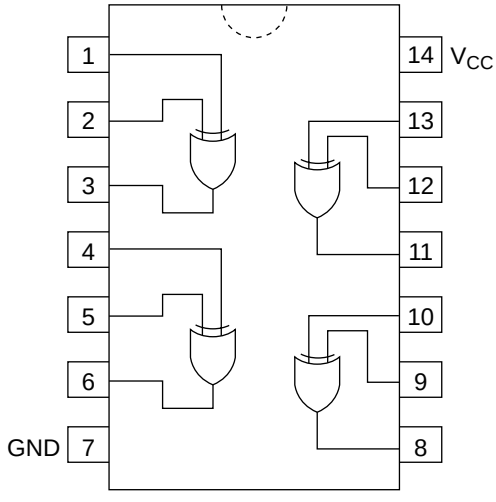
Features

- Outputs Source/Sink 24 mA
- HD74ACT86 has TTL-Compatible Inputs

Pin Arrangement



(Top view)

DC Characteristics (unless otherwise specified)

Item	Symbol	Max	Unit	Condition
Maximum quiescent supply current	I_{CC}	40	µA	V_{IN} = V_{CC} or ground, V_{CC} = 5.5 V, Ta = Worst case
Maximum quiescent supply current	I_{CC}	4.0	µA	V_{IN} = V_{CC} or ground, V_{CC} = 5.5 V, Ta = 25°C
Maximum I_{CC}/input (HD74ACT86)	I_{CCT}	1.5	mA	V_{IN} = V_{CC} – 2.1 V, V_{CC} = 5.5 V, Ta = Worst case

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AC Characteristics: HD74AC86

			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	9.5	12.5	1.0	14.0	ns
		5.0	1.0	7.5	10.0	1.0	11.0	
Propagation delay	t_{PHL}	3.3	1.0	8.5	11.5	1.0	13.0	ns
		5.0	1.0	6.5	9.0	1.0	10.0	

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: HD74ACT86

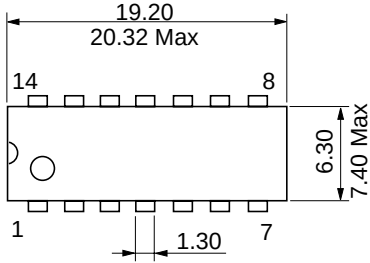
			Ta = +25°C C_L = 50 pF			Ta = –40°C to +85°C C_L = 50 pF		
Item	**Symbol**	**V_{cc} (V)*[1]**	**Min**	**Typ**	**Max**	**Min**	**Max**	**Unit**
Propagation delay	t_{PLH}	5.0	1.0	8.5	11.0	1.0	12.0	ns
Propagation delay	t_{PHL}	5.0	1.0	7.0	10.0	1.0	11.0	ns

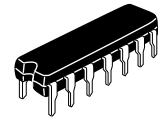
Note: 1. Voltage Range 5.0 is 5.0 V ± 0.5 V

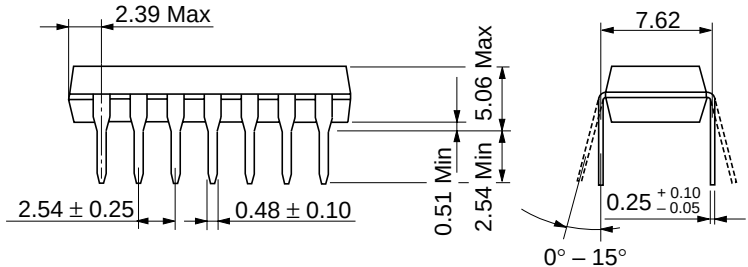
Capacitance

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

Unit: mm

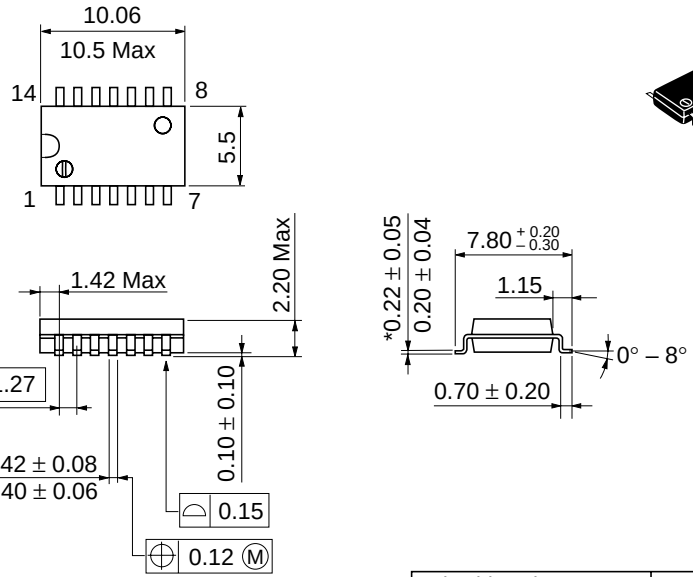


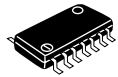




Hitachi Code	DP-14
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	0.97 g

Unit: mm

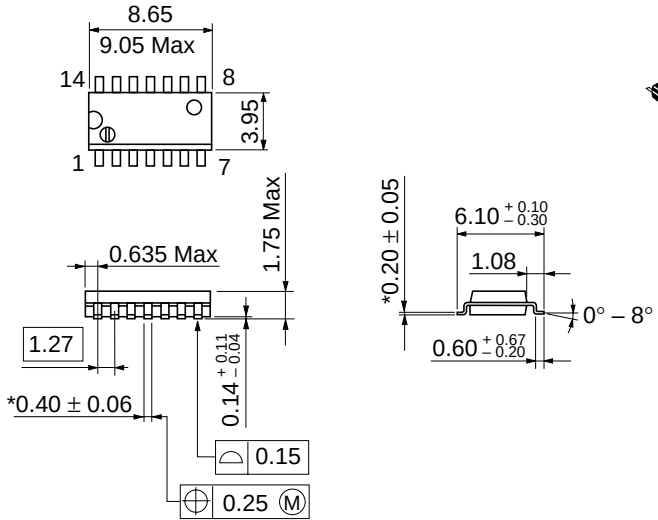




Hitachi Code	FP-14DA
JEDEC	—
EIAJ	Conforms
Weight (reference value)	0.23 g

*Dimension including the plating thickness
Base material dimension

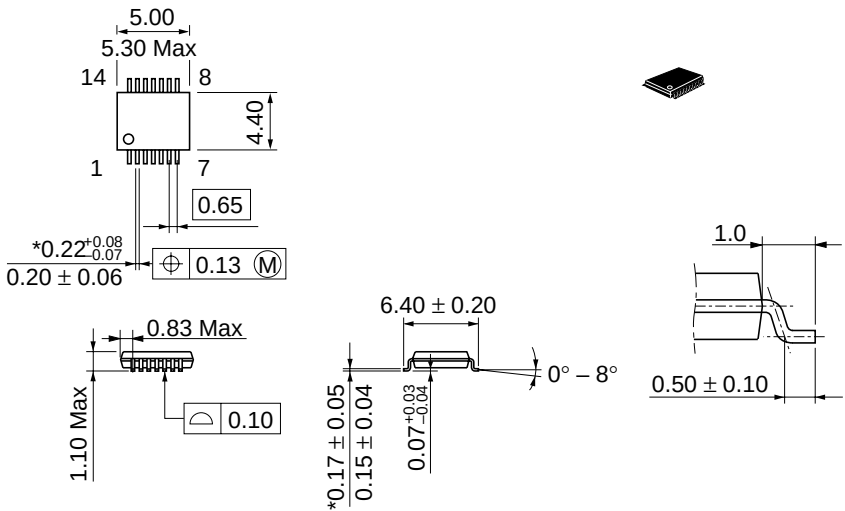
Unit: mm



Hitachi Code	FP-14DN
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	0.13 g

*Pd plating

Unit: mm



Hitachi Code	TTP-14D
JEDEC	—
EIAJ	—
Weight (reference value)	0.05 g

*Dimension including the plating thickness
Base material dimension

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