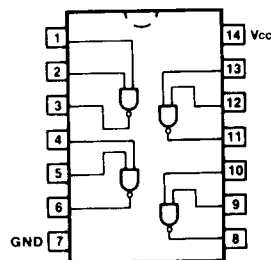


HD74AC00/HD74ACT00 • Quad 2-Input NAND Gate

- Outputs Source/Sink 24 mA
- HD74ACT00 has TTL-Compatible Inputs

Pin Assignment



(Top View)

DC Characteristics (unless otherwise specified)

Symbol	Parameter	Max	Unit	Condition
I_{CC}	Maximum Quiescent Supply Current	40	μA	$V_{IN} = V_{CC}$ or Ground, $V_{CC} = 5.5V$, $T_a = \text{Worst Case}$
I_{CC}	Maximum Quiescent Supply Current	4.0	μA	$V_{IN} = V_{CC}$ or Ground, $V_{CC} = 5.5V$, $T_a = 25^\circ C$
I_{CCT}	Maximum Additional $I_{CC}/\text{Input}(\text{HD74ACT00})$	1.5	mA	$V_{IN} = V_{CC} - 2.1V$, $V_{CC} = 5.5V$, $T_a = \text{Worst Case}$

AC Characteristics: HD74AC00

Symbol	Parameter	V_{CC}^* (V)	$T_a = +25^\circ C$ $C_L = 50pF$			$T_a = -40^\circ C$ to $+85^\circ C$ $C_L = 50pF$		Unit
			Min	Typ	Max	Min	Max	
t_{PLH}	Propagation Delay	3.3 5.0	1.0 1.0	7.0 6.0	9.5 8.0	1.0 1.0	10.0 8.5	ns
t_{PHL}	Propagation Delay	3.3 5.0	1.0 1.0	5.5 4.5	8.0 6.5	1.0 1.0	8.5 7.0	ns

*Voltage Range 3.3 is $3.3V \pm 0.3V$
Voltage Range 5.0 is $5.0V \pm 0.5V$

AC Characteristics : HD74ACT00

Symbol	Parameter	V_{CC}^* (V)	$T_a = +25^\circ C$ $C_L = 50pF$			$T_a = -40^\circ C$ to $+85^\circ C$ $C_L = 50pF$		Unit
			Min	Typ	Max	Min	Max	
t_{PLH}	Propagation Delay	5.0	1.0	5.5	9.0	1.0	9.5	ns
t_{PHL}	Propagation Delay	5.0	1.0	4.0	7.0	1.0	8.0	ns

*Voltage Range 5.0 is $5.0V \pm 0.5V$

Capacitance

Symbol	Parameter	Typ	Unit	Condition
C_{IN}	Input Capacitance	4.5	pF	$V_{CC} = 5.5V$
C_{PD}	Power Dissipation Capacitance	30.0	pF	$V_{CC} = 5.0V$

Package Information

In the HD74AC series of Advanced CMOS logic, either plastic DIP and small outline packages can be selected.

To order, please refer to the following package code.

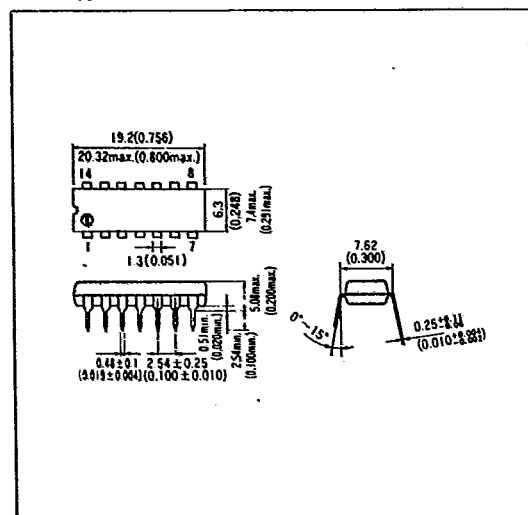
• Package code of Advanced CMOS Logic

HD74AC XXXX P

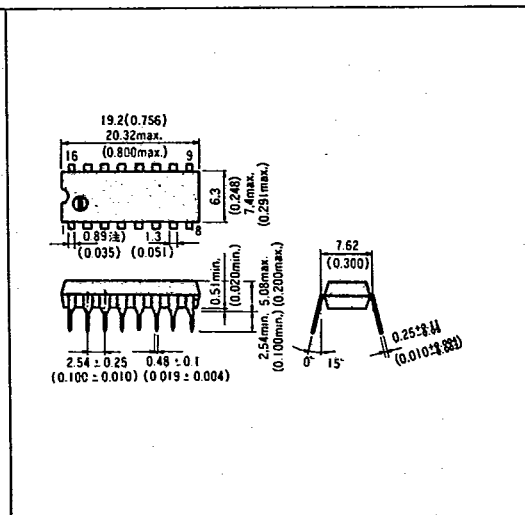
Package code
 P: Plastic DIP,
 FP: Small outline package
 Individual device code
 74AC: Commercial FACT
 74ACT: Commercial
 TTL-Compatible
 Advanced CMOS
 Initial cad of Hitachi
 digital IC

Plastic DIP Package [Unit: mm (inch)]

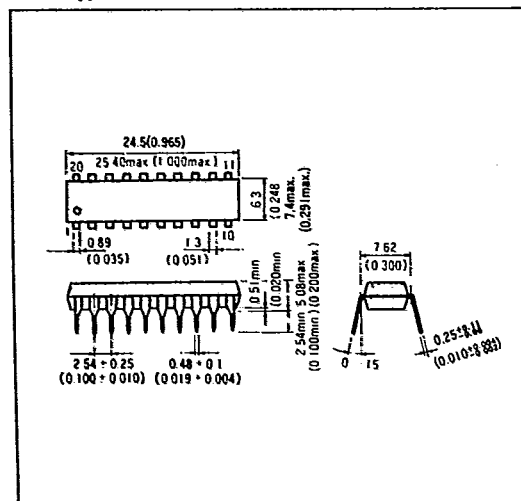
14 Pin type



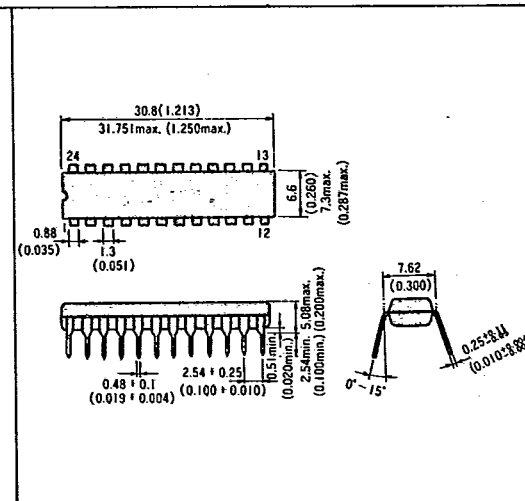
16 Pin type



20 Pin type



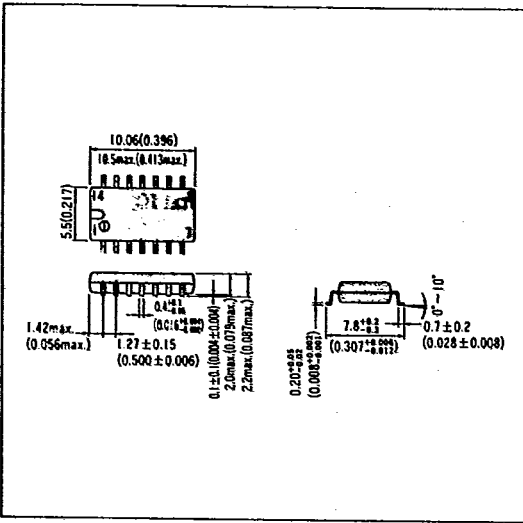
24 Pin type



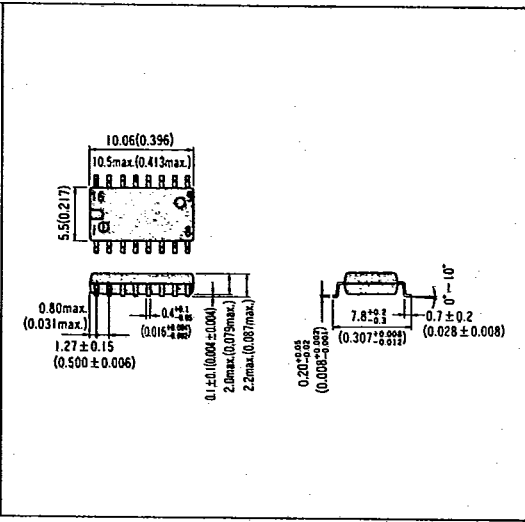
Package Information

Small Outline Package [Unit: mm (inch)]

14 Pin type



16 Pin type



20 Pin type

