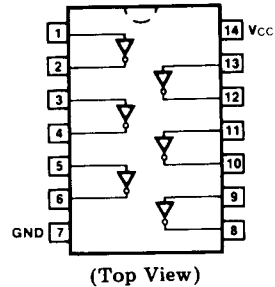


# HD74AC04/HD74ACT04 • Hex Inverter

- Outputs Source/Sink 24 mA
- HD74ACT04 has TTL-Compatible Inputs

## Pin Assignment



## DC Characteristics (unless otherwise specified)

Symbol	Parameter	Max	Unit	Condition
$I_{CC}$	Maximum Quiescent Supply Current	40	$\mu$ A	$V_{IN} = V_{CC}$ or Ground, $V_{CC} = 5.5V$ , $T_a = \text{Worst Case}$
$I_{CC}$	Maximum Quiescent Supply Current	4.0	$\mu$ A	$V_{IN} = V_{CC}$ or Ground, $V_{CC} = 5.5V$ , $T_a = 25^\circ C$
$I_{CCr}$	Maximum Additional $I_{CC}$ /Input(HD74ACT04)	1.5	mA	$V_{IN} = V_{CC} - 2.1V$ $V_{CC} = 5.5V$ , $T_a = \text{Worst Case}$

## AC Characteristics: HD74AC04

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	4.5 4.0	9.0 7.0	1.0 1.0	10.0 7.5	ns
$t_{PHL}$	Propagation Delay	3.3 5.0	1.0 1.0	4.5 3.5	8.5 6.5	1.0 1.0	9.5 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: HD74ACT04 PRELIMINARY

Symbol	Parameter	$V_{CC}^*$ (V)	$T_a = +25^\circ C$ $C_L = 50pF$			$T_a = -55^\circ C$ to $+85^\circ C$ $C_L = 50pF$		Unit
			Min	Typ	Max	Min	Max	
$t_{PLH}$	Propagation Delay	5.0		4.5				ns
$t_{PHL}$	Propagation Delay	5.0		3.9				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

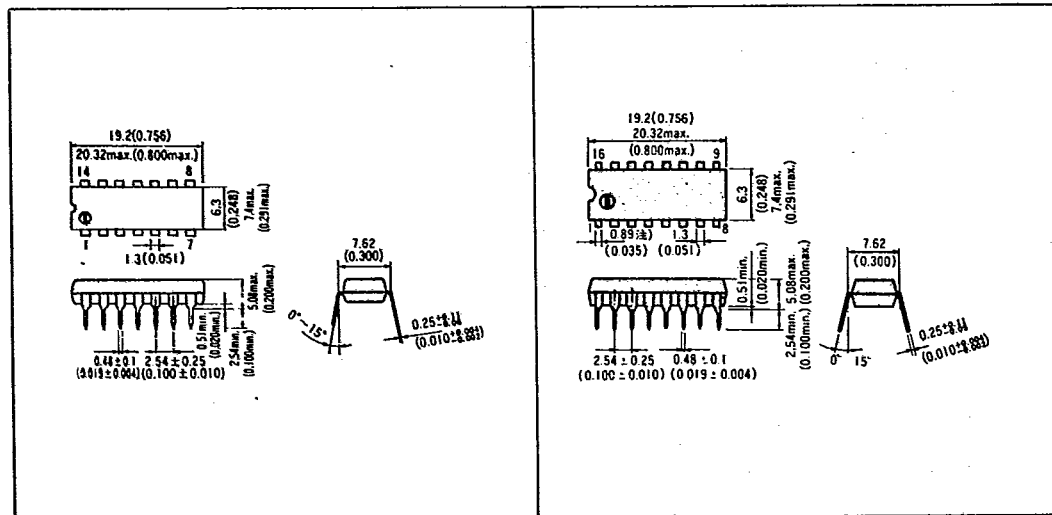
## HD74AC XXXX P

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)]

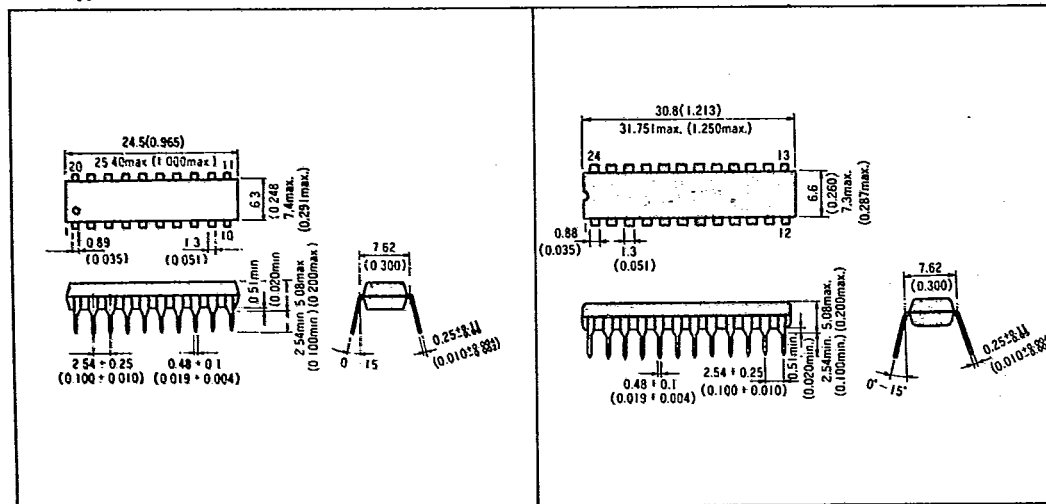
14 Pin type

16 Pin type



20 Pin type

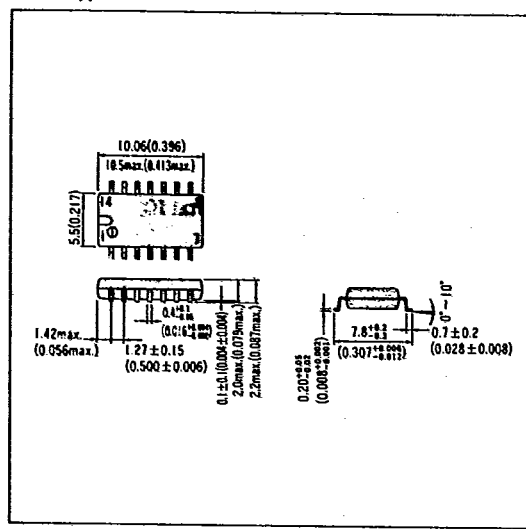
24 Pin type



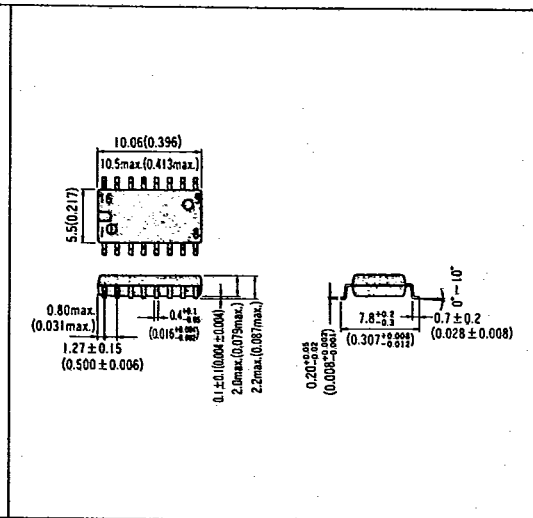
### Package Information

Small Outline Package [Unit: mm (inch)]

14 Pin type



16 Pin type



20 Pin type

