



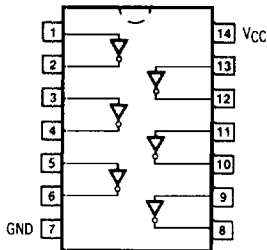
**MOTOROLA**

**MC74AC04  
MC74ACT04**

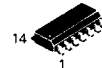
*Product Preview*  
**Hex Inverter**

- Outputs Source/Sink 24 mA
- 'ACT04 Has TTL Compatible Inputs

HEX INVERTER



N SUFFIX  
CASE 646-06  
PLASTIC



D SUFFIX  
CASE 751A-02  
PLASTIC

**DC CHARACTERISTICS** (unless otherwise specified)

Symbol	Parameter	Value	Units	Test Conditions
$I_{CC}$	Maximum Quiescent Supply Current	40	$\mu A$	$V_{IN} = V_{CC}$ or Ground, $V_{CC} = 5.5 V, T_A = \text{Worst Case}$
$I_{CC}$	Maximum Quiescent Supply Current	4.0	$\mu A$	$V_{IN} = V_{CC}$ or Ground, $V_{CC} = 5.5 V, T_A = 25^\circ C$
$I_{CCT}$	Maximum Additional $I_{CC}$ /Input ('ACT04)	1.5	mA	$V_{IN} = V_{CC} - 2.1 V$ $V_{CC} = 5.5 V, T_A = \text{Worst Case}$

**AC CHARACTERISTICS** (For Figures and Waveforms — See Section 3)

Symbol	Parameter	$V_{CC}^*$ (V)	74AC			74AC		Units	Fig. No.
			$T_A = +25^\circ C$ $C_L = 50 pF$			$T_A = -40^\circ C$ to $+85^\circ C$ $C_L = 50 pF$			
			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 7.5	ns	3-5
$t_{PHL}$	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	3-5

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

This document contains information on a product under development. Motorola reserves the right to change or discontinue this product without notice.

**MC74AC04 • MC74ACT04**

**AC CHARACTERISTICS** (For Figures and Waveforms — See Section 3)

Symbol	Parameter	V <sub>CC</sub> * (V)	74ACT			74ACT		Units	Fig. No.
			T <sub>A</sub> = +25°C C <sub>L</sub> = 50 pF			T <sub>A</sub> = -40°C to +85°C C <sub>L</sub> = 50 pF			
			Min	Typ	Max	Min	Max		
t <sub>PLH</sub>	Propagation Delay	5.0		4.5				ns	3-6
t <sub>PHL</sub>	Propagation Delay	5.0		3.9				ns	3-6

\*Voltage Range 5.0 is 5.0 V ± 0.5 V

**CAPACITANCE**

Symbol	Parameter	Value Typ	Units	Test Conditions
C <sub>IN</sub>	Input Capacitance	4.5	pF	V <sub>CC</sub> = 5.0 V
C <sub>PD</sub>	Power Dissipation Capacitance	30	pF	V <sub>CC</sub> = 5.0 V