



**MOTOROLA**

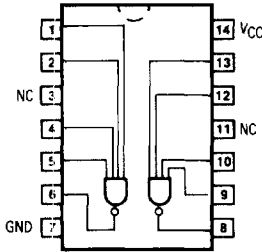
**MC74AC20  
MC74ACT20**

*Product Preview*

**Dual 4-Input NAND Gate**

- Outputs Source/Sink 24 mA
- 'ACT20 Has TTL Compatible Inputs

DUAL 4-INPUT  
NAND GATE



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, $V_{CC} = 5.5 V$ , $T_A = 25^\circ C$

**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	6.0 5.0	8.5 7.0	1.0 1.0	10 8.0	ns	3-5
$t_{PHL}$	Propagation Delay	3.3 5.0	1.0 1.0	5.0 4.0	7.0 6.0	1.0 1.0	9.0 7.0	ns	3-5

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

**AC CHARACTERISTICS — MC74ACT20**  
(Contact Local Motorola Sales Office)

**CAPACITANCE**

Symbol	Parameter	Value Typ	Units	Test Conditions
$C_{IN}$	Input Capacitance	4.5	pF	$V_{CC} = 5.0 V$
$C_{pD}$	Power Dissipation Capacitance	40	pF	$V_{CC} = 5.0 V$

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