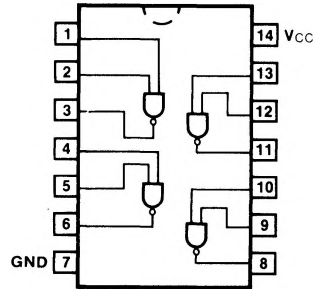


**54/7400**  
**54H/74H00**  
**54S/74S00**  
**54LS/74LS00**  
 QUAD 2-INPUT NAND GATE

**CONNECTION DIAGRAMS**  
**PINOUT A**



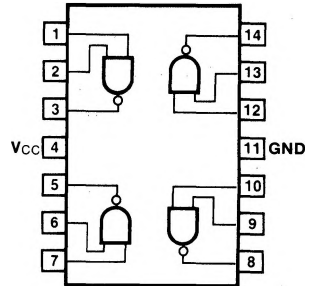
**ORDERING CODE:** See Section 9

PKGS	PIN OUT	COMMERCIAL GRADE	MILITARY GRADE	PKG TYPE
		$V_{CC} = +5.0\text{ V} \pm 5\%$ , $T_A = 0^\circ\text{ C to } +70^\circ\text{ C}$	$V_{CC} = +5.0\text{ V} \pm 10\%$ , $T_A = -55^\circ\text{ C to } +125^\circ\text{ C}$	
Plastic DIP (P)	A	7400PC, 74H00PC 74LS00PC, 74S00PC		9A
Ceramic DIP (D)	A	7400DC, 74H00DC 74LS00DC, 74S00DC	5400DM, 54H00DM 54LS00DM, 54S00DM	6A
Flatpak (F)	A	74LS00FC, 74S00FC	54LS00FM, 54S00FM	3I
	B	7400FC, 74H00FC	5400FM, 54H00FM	

**INPUT LOADING/FAN-OUT:** See Section 3 for U.L. definitions

PINS	54/74 (U.L.) HIGH/LOW	54/74H (U.L.) HIGH/LOW	54/74S (U.L.) HIGH/LOW	54/74LS (U.L.) HIGH/LOW
Inputs	1.0/1.0	1.25/1.25	1.25/1.25	0.5/0.25
Outputs	20/10	12.5/12.5	25/12.5	10/5.0 (2.5)

**PINOUT B**



**DC AND AC CHARACTERISTICS:** See Section 3\*

SYMBOL	PARAMETER	54/74		54/74H		54/74S		54/74LS		UNITS	CONDITIONS
		Min	Max	Min	Max	Min	Max	Min	Max		
I <sub>CC</sub> H	Power Supply	8.0	16.8	16	1.6	mA	$V_{IN} = \text{Gnd}$ $V_{CC} = \text{Max}$				
I <sub>CC</sub> L	Current	22	40	36	4.4				$V_{IN} = \text{Open}$		
t <sub>PLH</sub>	Propagation Delay	22	10	2.0	4.5	10	ns		Figs. 3-1, 3-4		
t <sub>PHL</sub>		15	10	2.0	5.0	10					

\*DC limits apply over operating temperature range; AC limits apply at  $T_A = +25^\circ\text{ C}$  and  $V_{CC} = +5.0\text{ V}$ .