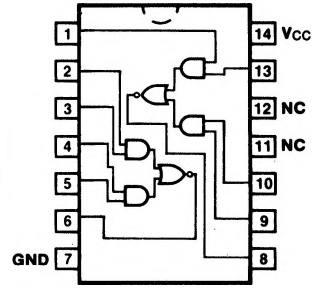


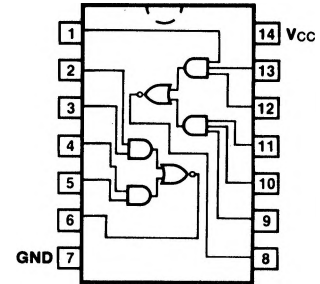
**54/7451**  
**54H/74H51**  
**54S/74S51**  
**54LS/74LS51**

DUAL 2-WIDE, 2-INPUT AOI GATE  
 DUAL 2-WIDE, 2-INPUT/3-INPUT AOI GATE ('LS51)

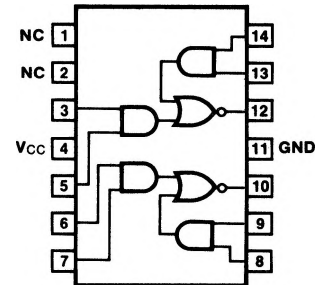
**CONNECTION DIAGRAMS**  
**PINOUT A**



**PINOUT B**



**PINOUT C**



**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	7451PC, 74H51PC 74S51PC		9A
	B	74LS51PC		
Ceramic DIP (D)	A	7451DC, 74H51DC 74S51DC	5451DM, 54H51DM 54S51DM	6A
	B	74LS51DC	54LS51DM	
Flatpak (F)	A	74S51FC	54S51FM	3I
	B	74LS51FC	54LS51FM	
	C	7451FC, 74H51FC	5451FM, 54H51FM	

**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)

**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			
$I_{CCH}$ $I_{CCL}$	Power Supply Current	8.0 14	12.8 24	17.8 22	1.6 2.8	mA	$V_{IN} = \text{Gnd}$ $V_{IN} = \text{Open}$	$V_{CC} = \text{Max}$
$t_{PLH}$ $t_{PHL}$	Propagation Delay	22 15	11 11	2.0 5.5 2.0 5.5	20 20	ns	Figs. 3-1, 3-4	

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