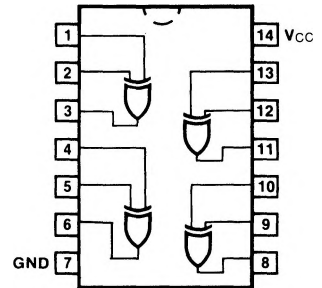


**54/7486**  
**54S/74S86**  
**54LS/74LS86**

**QUAD 2-INPUT EXCLUSIVE-OR GATE**

**CONNECTION DIAGRAM**  
**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	7486PC, 74S86PC 74LS86PC		9A
Ceramic DIP (D)	A	7486DC, 74S86DC 74LS86DC	5486DM, 54S86DM 54LS86DM	6A
Flatpak (F)	A	7486FC, 74S86FC 74LS86FC	5486FM, 54S86FM 54LS86FM	3I

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

PINS	54/74 (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	1.0/0.375
Outputs	20/10	25/12.5	10/5.0 (2.5)

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

SYMBOL	PARAMETER	54/74		54/74S		54/74LS		UNITS	CONDITIONS
		Min	Max	Min	Max	Min	Max		
$I_{CC}$	Power Supply Current	XM		43	75	10	10	mA	$V_{CC} = \text{Max}, V_{IN} = \text{Gnd}$
		XC		50	75	10	10		
$t_{PLH}$	Propagation Delay	23	3.5	10.5	12	ns	Other Input LOW Figs. 3-1, 3-5		
$t_{PHL}$		17	3.0	10	17				
$t_{PLH}$	Propagation Delay	30	3.5	10.5	13	ns	Other Input HIGH Figs. 3-1, 3-4		
$t_{PHL}$		22	3.0	10	12				

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