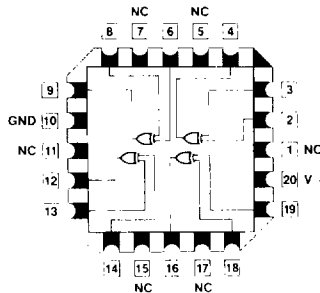


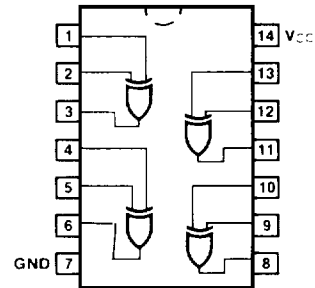
# 54F/74F86

## Quad 2-Input Exclusive-OR Gate

### Connection Diagrams



**Pin Assignment  
for LCC and PCC**



**Pin Assignment  
for DIP and SOIC**

**Ordering Code:** See Section 5

**Input Loading/Fan-Out:** See Section 3 for U.L. definitions

Pin Names	Description	54F/74F(U.L.) HIGH/LOW
	Inputs	0.5/0.375
	Outputs	25/12.5

### DC Characteristics over Operating Temperature Range (unless otherwise specified)

Symbol	Parameter	54F/74F			Units	Conditions	
		Min	Typ	Max			
$I_{CCL}$	Power Supply Current		18	28	mA	Inputs HIGH	$V_{CC} = \text{Max}$
$I_{CCH}$			12	18		One Input LOW One Input HIGH	

### AC Characteristics: See Section 3 for waveforms and load configurations

Symbol	Parameter	54F/74F			54F		74F		Units	Fig. No.
		$T_A = +25^\circ\text{C}$ $V_{CC} = +5.0\text{ V}$ $C_L = 50\text{ pF}$			$T_A, V_{CC} = \text{Mil}$ $C_L = 50\text{ pF}$		$T_A, V_{CC} = \text{Com}$ $C_L = 50\text{ pF}$			
		Min	Typ	Max	Min	Max	Min	Max		
$t_{PLH}$ $t_{PHL}$	Propagation Delay (Other Input LOW)	3.0	4.0	5.5	2.5	7.0	3.0	6.5	ns	3-1 3-4
		3.0	4.2	5.5	3.0	7.0	3.0	6.5		
$t_{PLH}$ $t_{PHL}$	Propagation Delay (Other Input HIGH)	3.5	5.3	7.0	3.5	8.5	3.5	8.0	ns	3-1 3-3
		3.0	4.7	6.5	3.0	8.0	3.0	7.5		