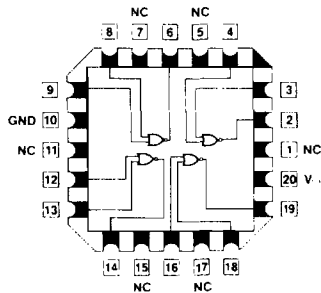
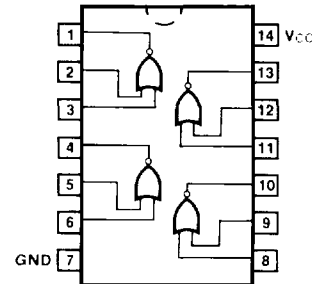


## 54F/74F02

Quad 2-Input NOR Gate

## Connection Diagrams

Pin Assignment  
for LCC and PCCPin 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.)<br>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  |       | $V_{IN} = \text{Gnd}$ | $V_{CC} = \text{Max}$ |
| $I_{CCH}$ | Power Supply Current |         | 3.7 | 5.6  | mA    |                       |                       |
| $I_{CCL}$ |                      |         | 8.7 | 13.0 |       | *                     |                       |

\*Measured with one input HIGH, one input LOW for each gate.

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

| Symbol    | Parameter         | 54F/74F   |     |     | 54F  |     | 74F  |     | Units | Fig. No. |
|-----------|-------------------|---|-----|-----|--|-----|--|-----|-------|----------|
|           |                   | $T_A = +25^\circ\text{C}$<br>$V_{CC} = +5.0\text{ V}$<br>$C_L = 50\text{ pF}$ |     |     | $T_A, V_{CC} = \text{Mil}$<br>$C_L = 50\text{ pF}$ |     | $T_A, V_{CC} = \text{Com}$<br>$C_L = 50\text{ pF}$ |     |       |          |
|           |                   | Min   | Typ | Max | Min  | Max | Min  | Max |       |          |
| $t_{PLH}$ | Propagation Delay | 2.5   | 4.4 | 5.5 | 2.5  | 7.5 | 2.5  | 6.5 | ns    | 3-1      |
| $t_{PHL}$ |                   | 1.5   | 3.2 | 4.3 | 1.5  | 6.5 | 1.5  | 5.3 |       |          |