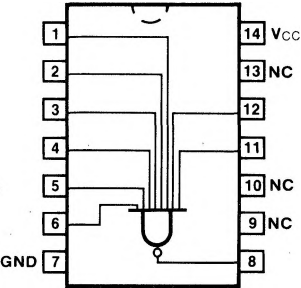


54/7430  
54H/74H30  
54S/74S30  
54LS/74LS30  
8-INPUT NAND GATE

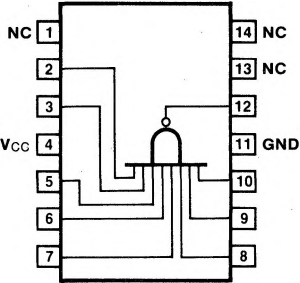
CONNECTION DIAGRAMS  
PINOUT A



ORDERING CODE: See Section 9

| PKGS               | PIN<br>OUT | COMMERCIAL GRADE                                                                    | MILITARY GRADE                                                                          | PKG<br>TYPE |
|--------------------|------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-------------|
|                    |            | $V_{CC} = +5.0\text{ V} \pm 5\%$ ,<br>$T_A = 0^\circ\text{C to } +70^\circ\text{C}$ | $V_{CC} = +5.0\text{ V} \pm 10\%$ ,<br>$T_A = -55^\circ\text{C to } +125^\circ\text{C}$ |             |
| Plastic<br>DIP (P) | A          | 7430PC, 74H30PC<br>74S30PC, 74LS30PC                                                |                                                                                         | 9A          |
| Ceramic<br>DIP (D) | A          | 7430DC, 74H30DC<br>74S30DC, 74LS30DC                                                | 5430DM, 54H30DM<br>54S30DM, 54LS30DM                                                    | 6A          |
| Flatpak<br>(F)     | A          | 74S30FC, 74LS30FC                                                                   | 54S30FM, 54LS30FM                                                                       | 3I          |
|                    | B          | 7430FC, 74H30FC                                                                     | 5430FM, 54H30FM                                                                         |             |

PINOUT B



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

| PINS    | 54/74 (U.L.)<br>HIGH/LOW | 54/74H (U.L.)<br>HIGH/LOW | 54/74S (U.L.)<br>HIGH/LOW | 54/74LS (U.L.)<br>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<br>(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 |       |                |           |
| ICCH   | Power Supply      | 2.0   |     | 4.2    |     | 5.0     |     | 0.5     |     | mA    | VIN = Gnd      | VCC = Max |
| ICCL   | Current           | 6.0   |     | 10     |     | 10      |     | 1.1     |     |       | VIN = Open     |           |
| tPLH   | Propagation Delay | 22    |     | 10     |     | 2.0 6.0 |     | 12      |     | ns    | Figs. 3-1, 3-4 |           |
| tPHL   |                   | 15    |     | 12     |     | 2.0 7.0 |     | 20      |     |       |                |           |

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