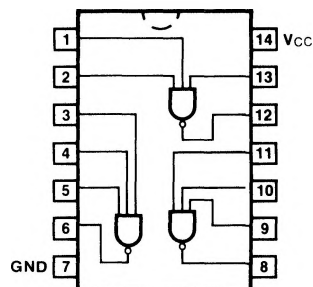


54/7410
54H/74H10
54S/74S10
54LS/74LS10
 TRIPLE 3-INPUT NAND GATE

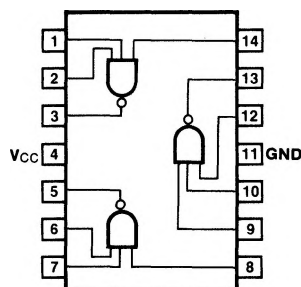
CONNECTION DIAGRAMS
PINOUT A



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 | 7410PC, 74H10PC 74S10PC, 74LS10PC | | 9A |
| Ceramic DIP (D) | A | 7410DC, 74H10DC 74S10DC, 74LS10DC | 5410DM, 54H10DM 54S10DM, 54LS10DM | 6A |
| Flatpak (F) | A | 74S10FC, 74LS10FC | 54S10FM, 54LS10FM | 3I |
| | B | 7410FC, 74H10FC | 5410FM, 54H10FM | |

PINOUT B



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 | | $V_{IN} = \text{Gnd}$ $V_{CC} = \text{Max}$ | Fig. 3-1, 3-4 |
| I_{CCH} | Power Supply | 6.0 | | 12.6 | | 12 | | 1.2 | | mA | | |
| I_{CCL} | Current | | 16.5 | | 30 | | 27 | | 3.3 | | $V_{IN} = \text{Open}$ | |
| t_{PLH} | Propagation Delay | | 22 | | 10 | 2.0 | 4.5 | | 15 | ns | Fig. 3-1, 3-4 | |
| t_{PHL} | | | 15 | | 10 | 2.0 | 5.0 | | 15 | | | |

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