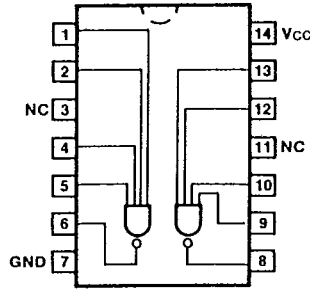


F-43-15

54/7420
54H/74H20
54S/74S20
54LS/74LS20
 DUAL 4-INPUT NAND GATE

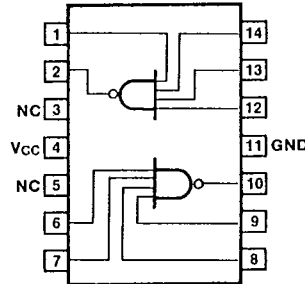
CONNECTION DIAGRAMS
PINOUT A



ORDERING CODE: See Section 9

| PKGS | PIN OUT | COMMERCIAL GRADE | MILITARY GRADE | PKG TYPE |
|-----------------|---------|--|--|----------|
| | | V _{CC} = +5.0 V ±5%, T _A = 0°C to +70°C | V _{CC} = +5.0 V ±10%, T _A = -55°C to +125°C | |
| Plastic DIP (P) | A | 7420PC, 74H20PC 74S20PC, 74LS20PC | | 9A |
| Ceramic DIP (D) | A | 7420DC, 74H20DC 74S20DC, 74LS20DC | 5420DM, 54H20DM 54S20DM, 54LS20DM | 6A |
| Flatpak (F) | A | 74S20FC, 74LS20FC | 54S20FM, 54LS20FM | 3I |
| | B | 7420FC, 74H20FC | 5420FM, 54H20FM | |

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 | | |
| I _{CC} H | Power Supply | 4.0 | | 8.4 | | 8.0 | | 0.8 | | mA | V _{IN} = Gnd V _{CC} = Max |
| I _{CC} L | Current | | 11 | | 20 | | 18 | | 2.2 | | |
| t _{PLH} t _{PHL} | Propagation Delay | | 22 15 | | 10 10 | | 2.0 2.0 | | 4.5 5.0 | 15 15 | Figs. 3-1, 3-4 |

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

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