

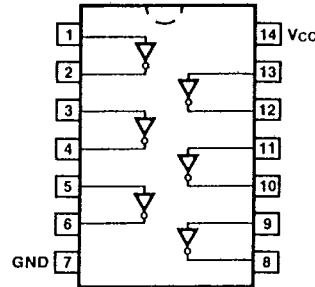
05

7-43-15

54/7405
54H/74H05
54S/74S05
54S/74S05A
54LS/74LS05

HEX INVERTER
 (With Open-Collector Output)

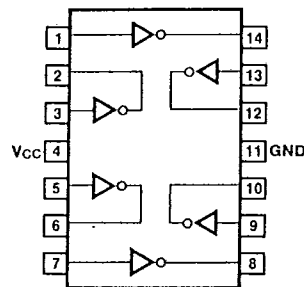
CONNECTION DIAGRAMS
PINOUT A



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 | 7405PC, 74H05PC 74S05PC, 74S05APC 74LS05PC | | 9A |
| Ceramic DIP (D) | A | 7405DC, 74H05DC 74S05DC, 74S05ADC 74LS05DC | 5405DM, 54H05DM 54S05DM, 54S05ADM 54LS05DM | 6A |
| Flatpak (F) | A | 74S05FC, 74S05AFC 74LS05FC | 54S05FM, 54S05AFM 54LS05FM | 3I |
| | B | 7405FC, 74H05FC | 5405FM, 54H05FM | |

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 | OC**/10 | OC**/12.5 | OC**/12.5 | OC**/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} = Gnd | V _{CC} = Max |
| I _{CC} H | Power Supply | 12 | 26 | 19.8 | 2.4 | mA | | | V _{IN} = Gnd | | V _{CC} = Max | |
| I _{CC} L | Current | 33 | 58 | 54 | 6.6 | mA | | | V _{IN} = Open | | | |
| t _{PLH} | Propagation Delay | 55 | 18 | 2.0 | 7.5 | ns | | | Fig. 3-2, 3-4 | | | |
| t _{PHL} | | 15 | 15 | 2.0 | 7.0 | | 22 | 18 | | | | |
| t _{PLH} | Propagation Delay (54S/74S05A only) | | | 2.0 | 5.5 | ns | | | Fig. 3-2, 3-4 | | | |
| t _{PHL} | | | | 1.5 | 5.0 | | | | | | | |

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