# 54H/74H61

## TRIPLE 3-INPUT EXPANDER

**ORDERING CODE:** See Section 9

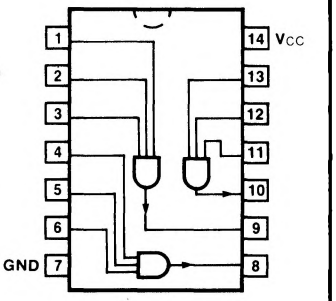
| PKGS | PIN OUT | COMMERCIAL GRADE $V_{CC}$ = +5.0 V ±5%, $T_A$ = 0°C to +70°C | MILITARY GRADE $V_{CC}$ = +5.0 V ±10%, $T_A$ = -55°C to +125°C | PKG TYPE |
|---|---|---|---|---|
| Plastic DIP (P) | A | 74H61PC | | 9A |
| Ceramic DIP (D) | A | 74H61DC | 54H61DM | 6A |
| Flatpak (F) | B | 74H61FC | 54H61FM | 3I |

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

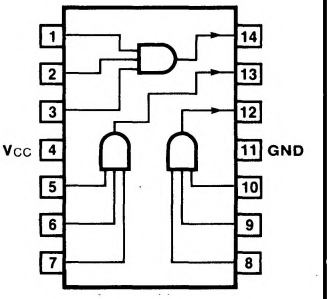
| PINS | 54/74H (U.L.) HIGH/LOW |
|---|---|
| Inputs | 1.25/1.25 |
| Outputs | */* |

**CONNECTION DIAGRAMS**

PINOUT A




PINOUT B




**DC CHARACTERISTICS OVER OPERATING TEMPERATURE RANGE** (unless otherwise specified)

| SYMBOL | PARAMETER | 54/74H Min | 54/74H Max | UNITS | CONDITIONS | |
|---|---|---|---|---|---|---|
| $V_{ON}$ | Output ON Voltage | | 1.0 | V | $T_A$ = -55°C, $I_{ON}$ = 4.5 mA | $V_{CC}$ = Min, $V_{IH}$ = 2.0 V |
| | | | 1.0 | | $T_A$ = 0°C, $I_{ON}$ = 5.35 mA | |
| $I_{OFF}$ | Output OFF Current | | 50 | µA | $V_{CC}$ = Min, $V_{IL}$ = 0.8 V, $T_A$ = Max, $V_{OFF}$ = 2.2 V | |
| $I_{CC(ON)}$ | Power Supply Current | | 16 | mA | $V_{IN}$ = Open | $V_{CC}$ = Max |
| $I_{CC(OFF)}$ | | | 7.0 | | $V_{IN}$ = Gnd | |

**OUTPUT CAPACITANCE:** $V_{CC}$ and Ground Terminals Open

| SYMBOL | PARAMETER | 54/74H Min | 54/74H Max | UNITS | CONDITIONS |
|---|---|---|---|---|---|
| $C_X$ | Effective Capacitance of Output Transistor $Q_1$ | | 1.3** | pF | f = 1.0 MHz, $T_A$ = +25°C |

*Expander Outputs
**Typical Value