

54H/74H62

3-2-2-3-INPUT AND-OR EXPANDER

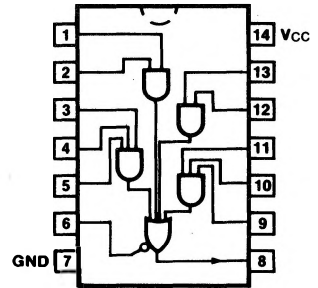
ORDERING CODE: See Section 9

| 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 | 74H62PC | | 9A |
| Ceramic DIP (D) | A | 74H62DC | 54H62DM | 6A |
| Flatpak (F) | B | 74H62FC | 54H62FM | 3I |

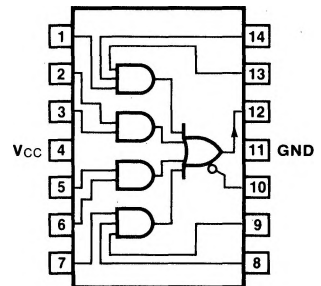
INPUT LOADING/FAN-OUT: See Section 3 for U.L. definitions

| PINS | 54/74H (U.L.) HIGH/LOW |
|----------------------|------------------------|
| Inputs | 1.25/1.25 |
| Outputs ¹ | Note 2 |

CONNECTION DIAGRAMS PINOUT A



PINOUT B



DC CHARACTERISTICS OVER OPERATING TEMPERATURE RANGE (unless otherwise specified)

| SYMBOL | PARAMETER | 54/74H | | UNITS | CONDITIONS ³ |
|---|----------------------|--------|------------|-------|--|
| | | Min | Max | | |
| V _{ON} | Output ON Voltage | | 0.4 | V | T = -55°C I _{ON} = 5.85 mA T _A = 0°C I _{ON} = 6.3 mA V _{CC} = Min, V _{IN} = 2.0 V, V ₁ = 1.0 V |
| | | | 0.4 | | |
| V _{ON} | Output ON Voltage | | 0.4 | V | T _A = +125°C I _{ON} = 7.85 mA T _A = +70°C I _{ON} = 7.4 mA V _{CC} = Max, V _{IN} = 2.0 V, V ₁ = 0.6 V |
| | | | 0.4 | | |
| I _{OFF} | Output OFF Current | | 320 | μA | T _A = -55°C T _A = 0°C V _{CC} = Min, V _{IN} = 0.8 V, V ₁ = 4.5 V, R = 575 Ω |
| | | | 570 | | |
| I _{ON} | Output ON Current | -470 | | μA | T _A = -55°C T _A = 0°C V _{CC} = Min, V _{IN} = 2.0 V, V ₁ = 1.0 V |
| | | -600 | | | |
| I _{CC(ON)} I _{CC(OFF)} | Power Supply Current | | 7.0 9.0 | mA | V _{IN} = Open V _{IN} = Gnd V _{CC} = Max, V ₁ = 0.85 V |

1. A maximum of one expander may be connected to one expandable AND-OR-Invert gate
2. Expander Outputs
3. V₁ is applied to x output terminal during test

OUTPUT CAPACITANCE: V_{CC} and Ground Terminals Open

| SYMBOL | PARAMETER | 54/74H | | UNITS | CONDITIONS |
|---------------|--|--------|------|-------|---|
| | | Min | Max | | |
| $C_{\bar{X}}$ | Effective Capacitance of Output Transistor Q_1 | | 1.3* | pF | $f = 1.0 \text{ MHz}, T_A = +25^\circ \text{C}$ |

*Typical Value