**DUAL DATA DISTRIBUTOR**

# MC4302
# MC4002



Z0 = ABX
Z1 = A$\bar{B}$X
Z2 = $\bar{A}$BX
Z3 = $\bar{A}\bar{B}$X
W0 = $\bar{C}$Y
W1 = CY

Input Loading Factor:
A, B = 3
C, Y = 2
X = 4

Output Loading Factor = 10

Total Power Dissipation = 175 mW typ/pkg

$V_{CC}$ = PIN 4
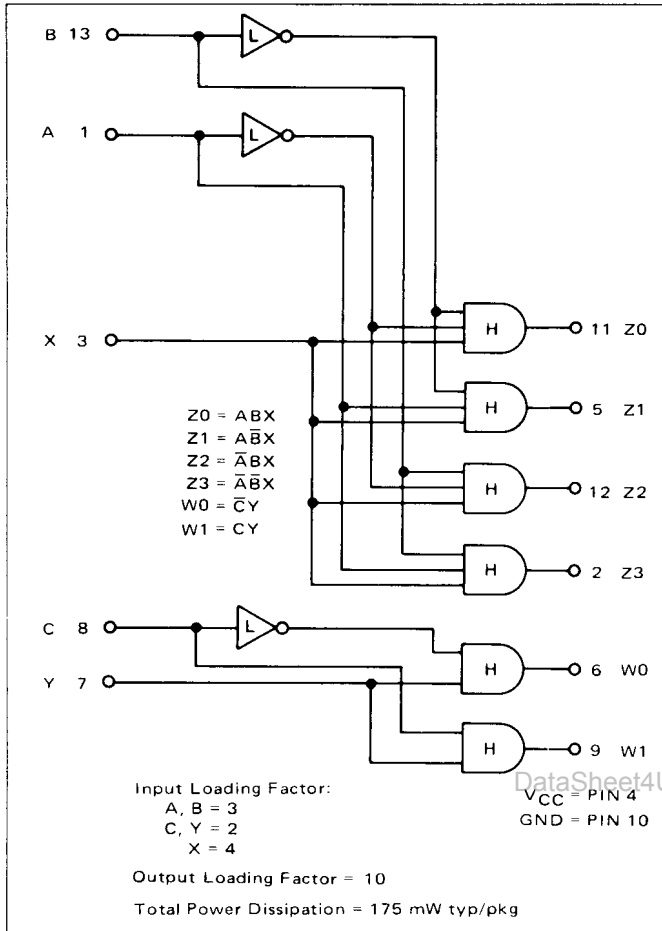GND = PIN 10

This device consists of two data distributors constructed from high-level AND gates and low-level inverters. One distributes information present at the input line to one of four output lines; the other distributes information present at the input to one of two output lines. The routing path is selected by the logic signals at the control lines A, B or C.
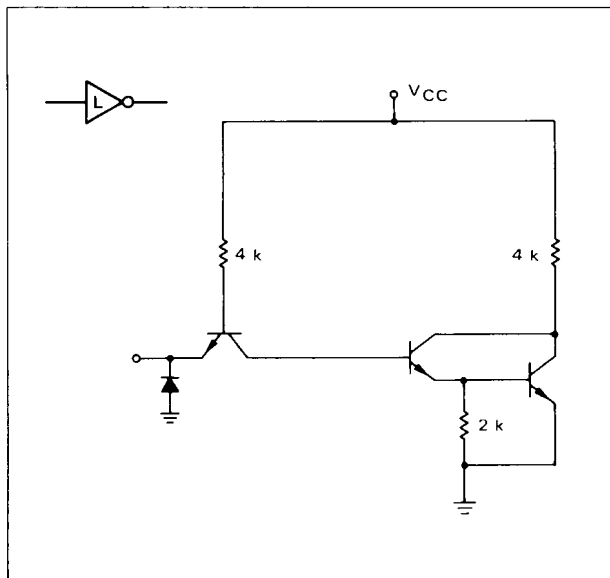
Data distributors are useful in applications where digital data is to be routed from a single register or location to one of several registers or locations for processing.

**TYPICAL PROPAGATION DELAY TIMES (ns)**
$T_A = 25°C$

| INPUT | Z0 | Z1 | Z2 | Z3 |
|-------|------|------|------|------|
| A | 14.5 | 10.5 | 14.5 | 10.5 |
| B | 14.5 | 14.5 | 10.5 | 10.5 |
| X | 10.5 | 10.5 | 10.5 | 10.5 |

| INPUT | W0 | W1 |
|-------|------|------|
| C | 14.5 | 10.5 |
| Y | 10.5 | 10.5 |

**LOW-LEVEL INVERTER**



**HIGH-LEVEL "AND" GATE**



‡ Diodes used only when inputs are connected to external points.

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