DUAL 4-BIT COMPARATOR

MC4021P · MC4022P*

Advance Information

The 4-bit comparator compares four bits of input information to four bits of reference information. When each bit of the input information is the same as its corresponding reference information, bit for bit, the output of the comparator will be in the high ("1") state. For any other condition, the output of the comparator will be in the low ("0") state.

In this dual 4-bit comparator, the four reference inputs (R) serve both comparators. There is no interrelation between the A and B data inputs of the dual comparator. Output Z1 reflects comparison of the A and R bits, while output Z2 shows conditions at inputs B and R.

The MC4021 has open-collector outputs; the MC4022 has totem-pole outputs.
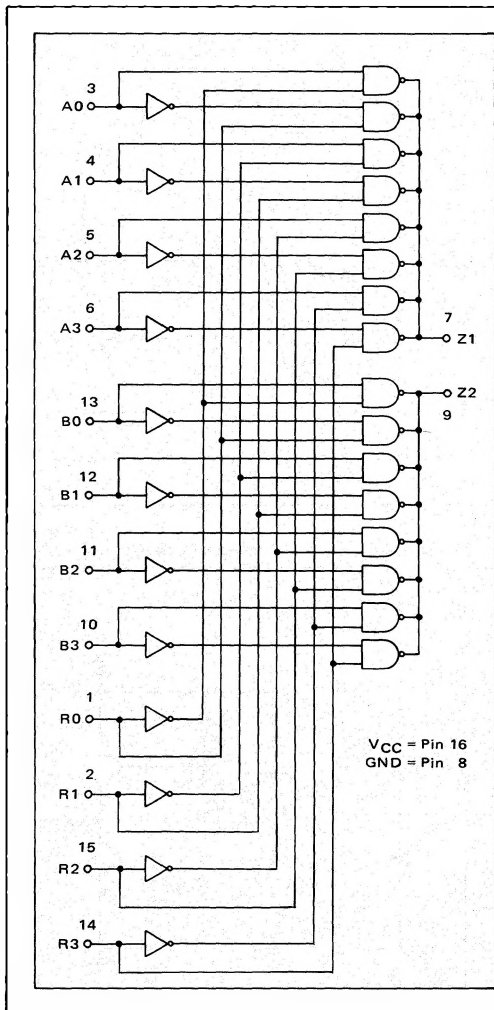
A0	A1	A2	A3	B0	B1	B2	B3	R0	R1	R2	R3	Z1	Z2
0	0	0	0	0	0	1	1	0	0	0	0	1	0
0	0	0	0	0	0	1	1	0	0	0	1	0	0
0	0	0	0	0	0	1	1	0	0	1	0	0	0
0	0	0	0	0	0	1	1	0	0	1	1	0	1
0	1	1	0	0	1	0	1	0	1	0	0	0	0
0	1	1	0	0	1	0	1	0	1	0	1	0	0
0	1	1	0	0	1	0	1	0	1	1	0	0	0
0	1	1	0	0	1	0	1	0	1	1	1	0	0
1	0	0	1	1	0	0	0	1	0	0	0	0	1
1	0	0	1	1	0	0	0	1	0	0	1	1	0
1	0	0	1	1	0	0	0	1	0	1	0	0	0
1	0	0	1	1	0	0	0	1	0	1	1	0	0
1	1	1	1	1	1	1	1	1	1	0	0	0	0
1	1	1	1	1	1	1	1	1	1	0	1	0	0
1	1	1	1	1	1	1	1	1	1	1	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1

V_{CC} = Pin 16
GND = Pin 8

Input Loading Factor = 2
Output Loading Factor = 10
Total Power Dissipation = 250 mW typ/pkg
Propagation Delay Time = 20 ns typ

This is advance information on a new introduction and specifications are subject to change without notice.
*P suffix = 16-pin dual in-line plastic package (Case 612).