

HEF4071B

Quad 2-input OR gate

Rev. 7 — 15 November 2011

Product data sheet

1. General description

The HEF4071B is a quad 2-input OR gate. The outputs are fully buffered for highest noise immunity and pattern insensitivity to output impedance variations.

It operates over a recommended V_{DD} power supply range of 3 V to 15 V referenced to V_{SS} (usually ground). Unused inputs must be connected to V_{DD} , V_{SS} , or another input.

2. Features and benefits

- Fully static operation
- 5 V, 10 V, and 15 V parametric ratings
- Standardized symmetrical output characteristics
- Inputs and outputs are protected against electrostatic effects
- Specified from $-40\text{ }^{\circ}\text{C}$ to $+85\text{ }^{\circ}\text{C}$ and $-40\text{ }^{\circ}\text{C}$ to $+125\text{ }^{\circ}\text{C}$
- Complies with JEDEC standard JESD 13-B

3. Ordering information

Table 1. Ordering information

All types operate from $-40\text{ }^{\circ}\text{C}$ to $+125\text{ }^{\circ}\text{C}$.

| Type number | Package | | |
|-------------|---------|--|----------|
| | Name | Description | Version |
| HEF4071BP | DIP14 | plastic dual in-line package; 14 leads (300 mil) | SOT27-1 |
| HEF4071BT | SO14 | plastic small outline package; 14 leads; body width 3.9 mm | SOT108-1 |

4. Functional diagram

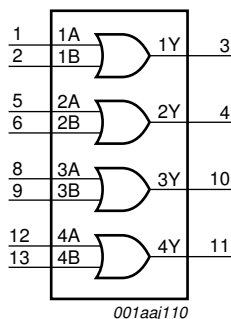


Fig 1. Functional diagram

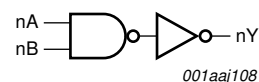


Fig 2. Logic diagram (one gate)



5. Pinning information

5.1 Pinning

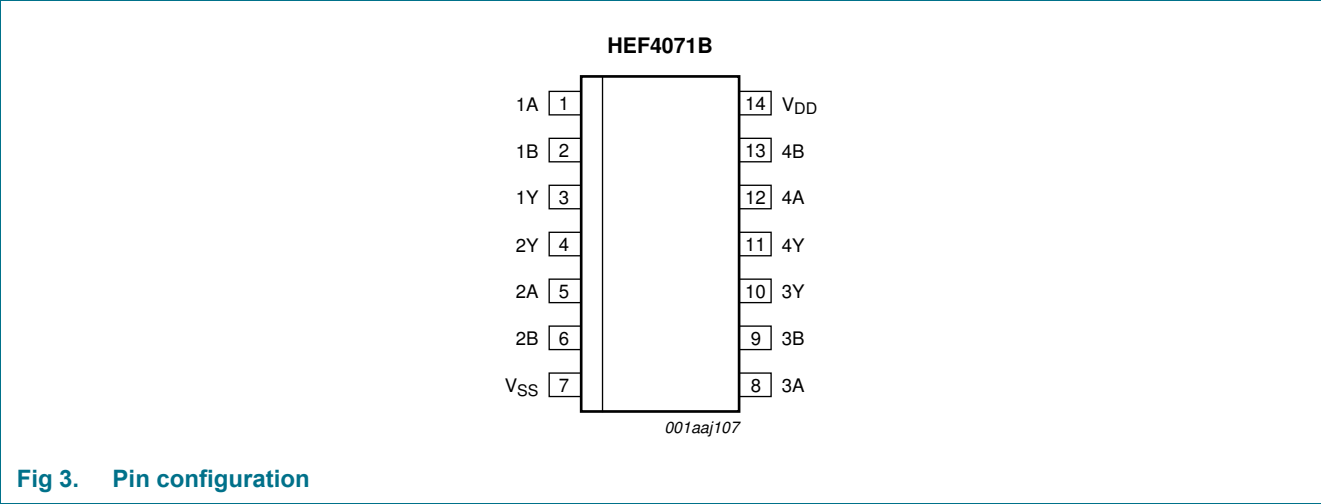


Fig 3. Pin configuration

5.2 Pin description

Table 2. Pin description

| Symbol | Pin | Description |
|----------|--------------|----------------|
| 1A to 4A | 1, 5, 8, 12 | input |
| 1B to 4B | 2, 6, 9, 13 | input |
| 1Y to 4Y | 3, 4, 10, 11 | output |
| VSS | 7 | ground (0 V) |
| VDD | 14 | supply voltage |

6. Functional description

Table 3. Function table^[1]

| Input | | Output |
|-------|----|--------|
| nA | nB | nY |
| L | L | L |
| L | H | H |
| H | L | H |
| H | H | H |

[1] H = HIGH voltage level; L = LOW voltage level.