

# HD74LS26

## Quadruple 2-input High-voltage Interface Positive NAND Gates

REJ03D0402-0200

Rev.2.00

Feb.18.2005

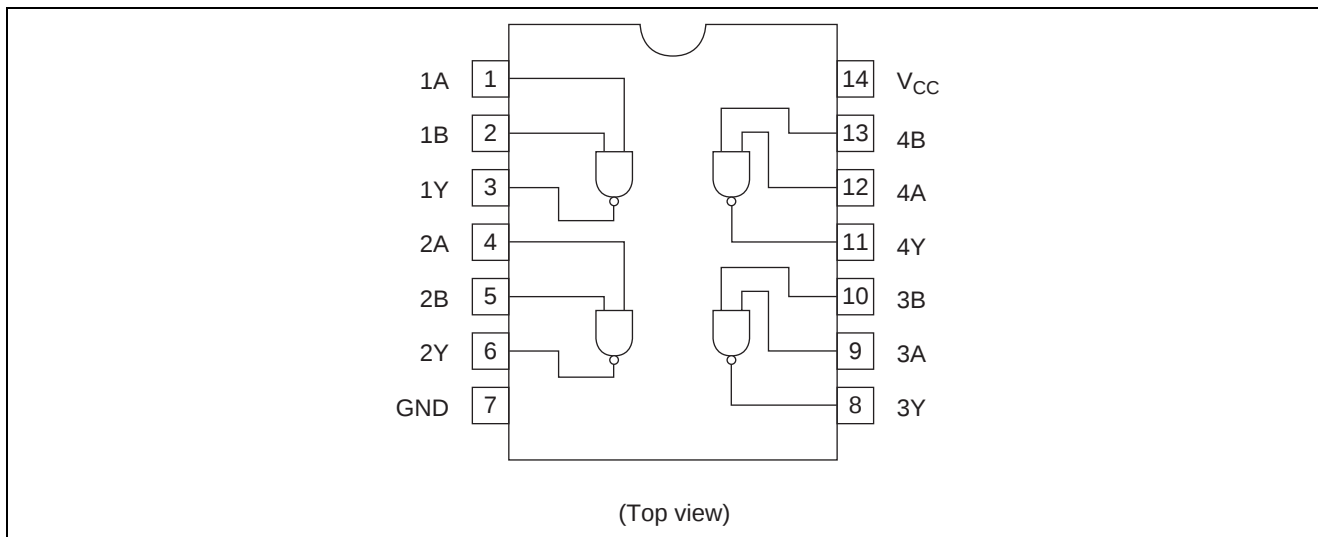
### Features

- Ordering Information

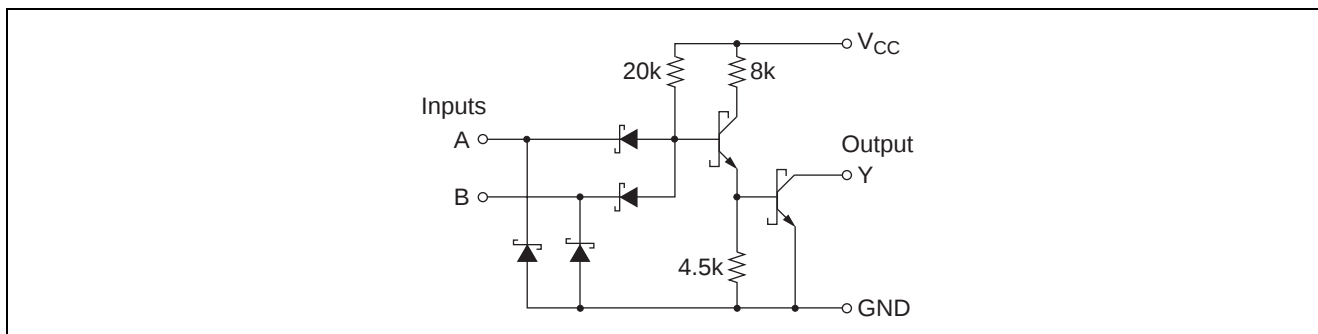
| Part Name    | Package Type       | Package Code<br>(Previous Code) | Package<br>Abbreviation | Taping Abbreviation<br>(Quantity) |
|--------------|--------------------|---------------------------------|-------------------------|-----------------------------------|
| HD74LS26P    | DILP-14 pin        | PRDP0014AB-B<br>(DP-14AV)       | P                       | —                                 |
| HD74LS26FPEL | SOP-14 pin (JEITA) | PRSP0014DF-B<br>(FP-14DAV)      | FP                      | EL (2,000 pcs/reel)               |

Note: Please consult the sales office for the above package availability.

### Pin Arrangement



### Circuit Schematic (1/4)



## Absolute Maximum Ratings

| Item                | Symbol    | Ratings     | Unit |
|---------------------|-----------|-------------|------|
| Supply voltage      | $V_{CC}$  | 7           | V    |
| Input voltage       | $V_{IN}$  | 7           | V    |
| Power dissipation   | $P_T$     | 400         | mW   |
| Storage temperature | $T_{stg}$ | -65 to +150 | °C   |

Note: Voltage value, unless otherwise noted, are with respect to network ground terminal.

## Recommended Operating Conditions

| Item                  | Symbol    | Min  | Typ  | Max  | Unit |
|-----------------------|-----------|------|------|------|------|
| Supply voltage        | $V_{CC}$  | 4.75 | 5.00 | 5.25 | V    |
| Output voltage        | $V_{OH}$  | —    | —    | 15   | V    |
| Output current        | $I_{OL}$  | —    | —    | 8    | mA   |
| Operating temperature | $T_{opr}$ | -20  | 25   | 75   | °C   |

## Electrical Characteristics

( $T_a = -20$  to  $+75$  °C)

| Item                | Symbol    | min. | typ.* | max. | Unit | Condition                                              |
|---------------------|-----------|------|-------|------|------|--------------------------------------------------------|
| Input voltage       | $V_{IH}$  | 2.0  | —     | —    | V    |                                                        |
|                     | $V_{IL}$  | —    | —     | 0.8  | V    |                                                        |
| Output voltage      | $V_{OL}$  | —    | —     | 0.4  | V    | $I_{OL} = 4$ mA<br>$V_{CC} = 4.75$ V, $V_{IH} = 2$ V   |
|                     |           | —    | —     | 0.5  |      |                                                        |
| Input current       | $I_{IH}$  | —    | —     | 20   | μA   | $V_{CC} = 5.25$ V, $V_I = 2.7$ V                       |
|                     | $I_{IL}$  | —    | —     | -0.4 | mA   | $V_{CC} = 5.25$ V, $V_I = 0.4$ V                       |
|                     | $I_I$     | —    | —     | 0.1  | mA   | $V_{CC} = 5.25$ V, $V_I = 7$ V                         |
| Output current      | $I_{OH}$  | —    | —     | 50   | μA   | $V_{OH} = 12$ V                                        |
|                     |           | —    | —     | 1    | mA   | $V_{OH} = 15$ V<br>$V_{CC} = 4.75$ V, $V_{IL} = 0.8$ V |
| Supply current      | $I_{CCH}$ | —    | 0.8   | 1.6  | mA   | $V_{CC} = 5.25$ V                                      |
|                     | $I_{CCL}$ | —    | 2.4   | 4.4  | mA   | $V_{CC} = 5.25$ V                                      |
| Input clamp voltage | $V_{IK}$  | —    | —     | -1.5 | V    | $V_{CC} = 4.75$ V, $I_{IN} = -18$ mA                   |

Note: \*  $V_{CC} = 5$  V,  $T_a = 25$  °C

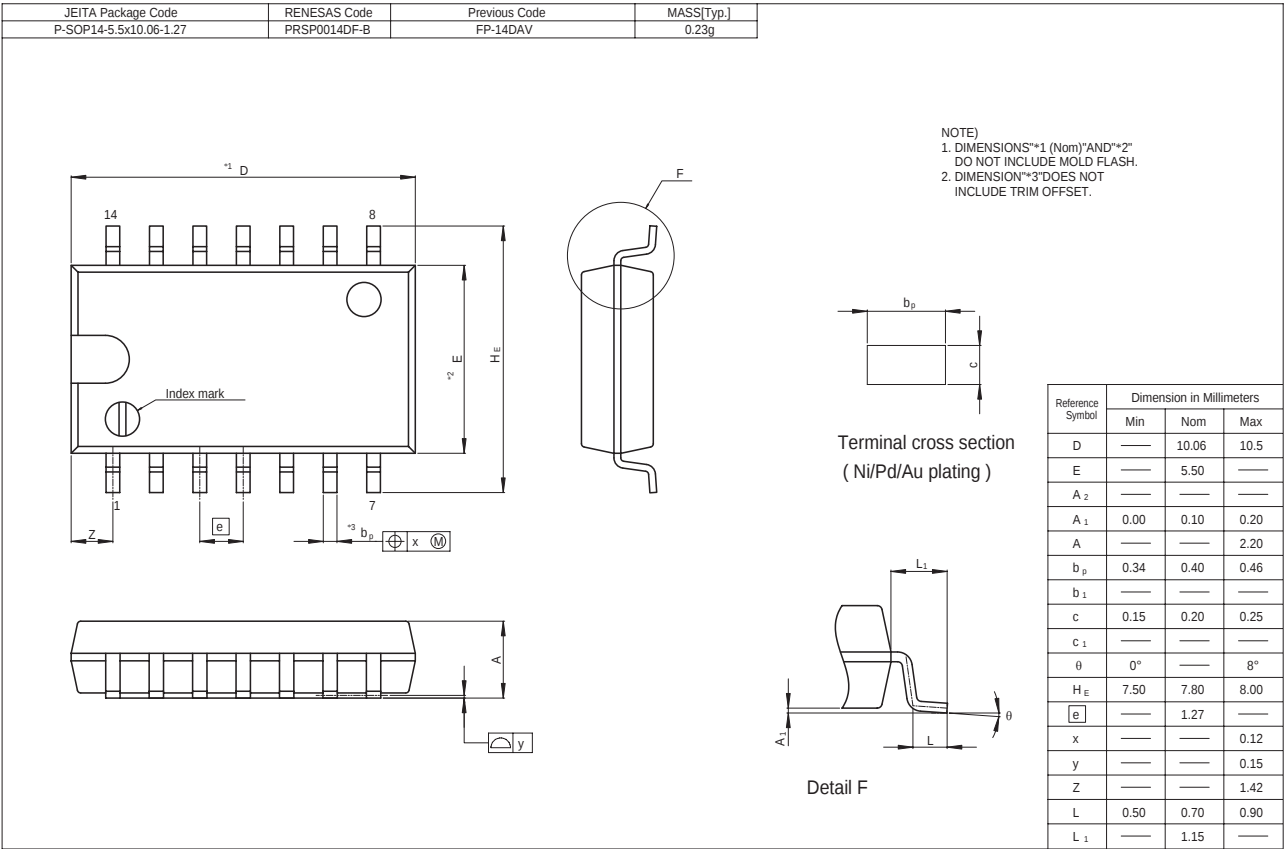
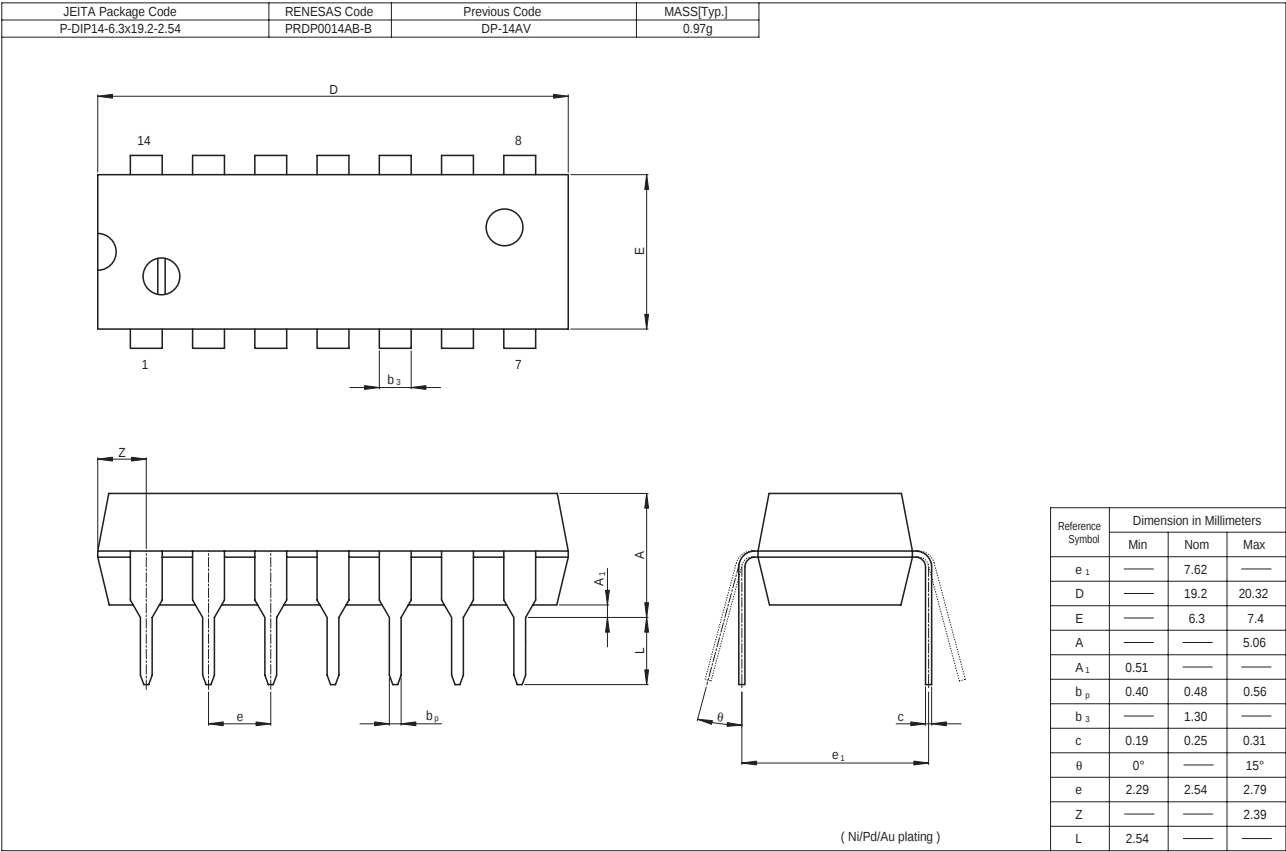
## Switching Characteristics

( $V_{CC} = 5$  V,  $T_a = 25$  °C)

| Item                   | Symbol    | min. | typ. | max. | Unit | Condition                   |
|------------------------|-----------|------|------|------|------|-----------------------------|
| Propagation delay time | $t_{PLH}$ | —    | 17   | 32   | ns   | $C_L = 15$ pF, $R_L = 2$ kΩ |
|                        | $t_{PHL}$ | —    | 15   | 28   | ns   |                             |

Note: Refer to Test Circuit and Waveform of the Common Item "TTL Common Matter (Document No.: REJ27D0005-0100)".

Package Dimensions



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