

HD74LS266

Quadruple 2-input Exclusive-NOR Gates
(with open collector outputs)

REJ03D0472-0200

Rev.2.00

Feb.18.2005

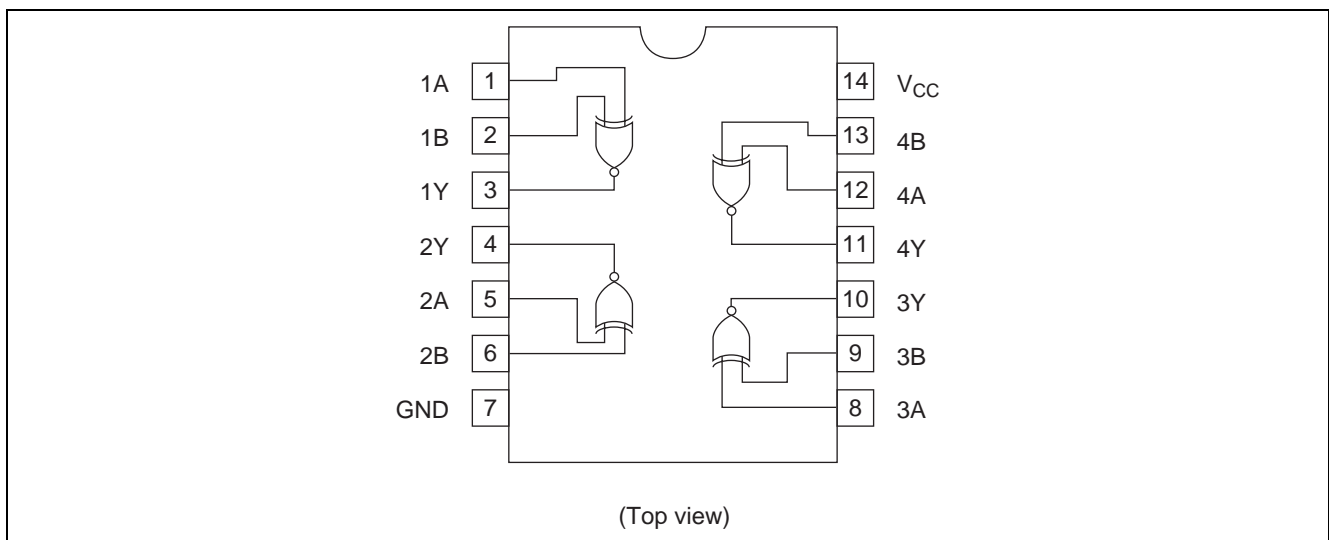
Features

- Ordering Information

| Part Name | Package Type | Package Code (Previous Code) | Package Abbreviation | Taping Abbreviation (Quantity) |
|---------------|--------------------|------------------------------|----------------------|--------------------------------|
| HD74LS266P | DILP-14 pin | PRDP0014AB-B (DP-14AV) | P | — |
| HD74LS266FPEL | SOP-14 pin (JEITA) | PRSP0014DF-B (FP-14DAV) | FP | EL (2,000 pcs/reel) |

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

Pin Arrangement



Function Table

| Inputs | | Output |
|--------|---|--------|
| A | B | Y |
| L | L | H |
| L | H | L |
| H | L | L |
| H | H | H |

H; high level, L; low level

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} | — | — | 5.5 | 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 | | |
| Output current | I_{OH} | — | — | 100 | μA | $V_{CC} = 4.75$ V, $V_{IH} = 2$ V, $V_{IL} = 0.8$ V, $V_{OH} = 5.5$ V |
| Output voltage | V_{OL} | — | — | 0.4 | V | $V_{CC} = 4.75$ V, $V_{IH} = 2$ V, $V_{IL} = 0.8$ V |
| | | — | — | 0.5 | | |
| Input current | I_{IH} | — | — | 40 | μA | $V_{CC} = 5.25$ V, $V_I = 2.7$ V |
| | I_{IL} | — | — | -0.8 | mA | $V_{CC} = 5.25$ V, $V_I = 0.4$ V |
| | I_I | — | — | 0.2 | mA | $V_{CC} = 5.25$ V, $V_I = 7$ V |
| Supply current | I_{CC}^{**} | — | 8 | 13 | mA | $V_{CC} = 5.25$ V |
| Input clamp voltage | V_{IK} | — | — | -1.5 | V | $V_{CC} = 4.75$ V, $I_{IN} = -18$ mA |

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

** I_{CC} is measured with one input of each gate at 4.5 V, the other inputs grounded, and the outputs open.

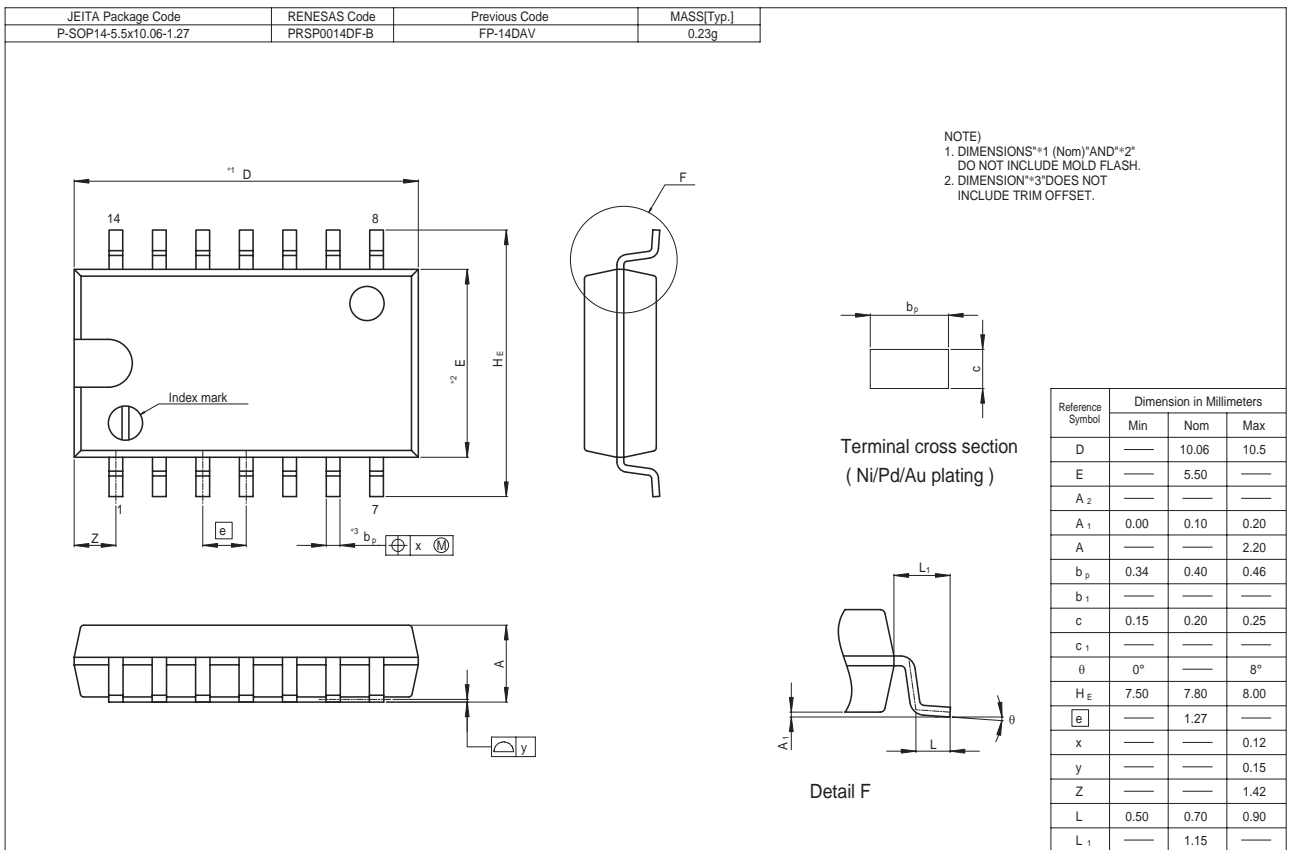
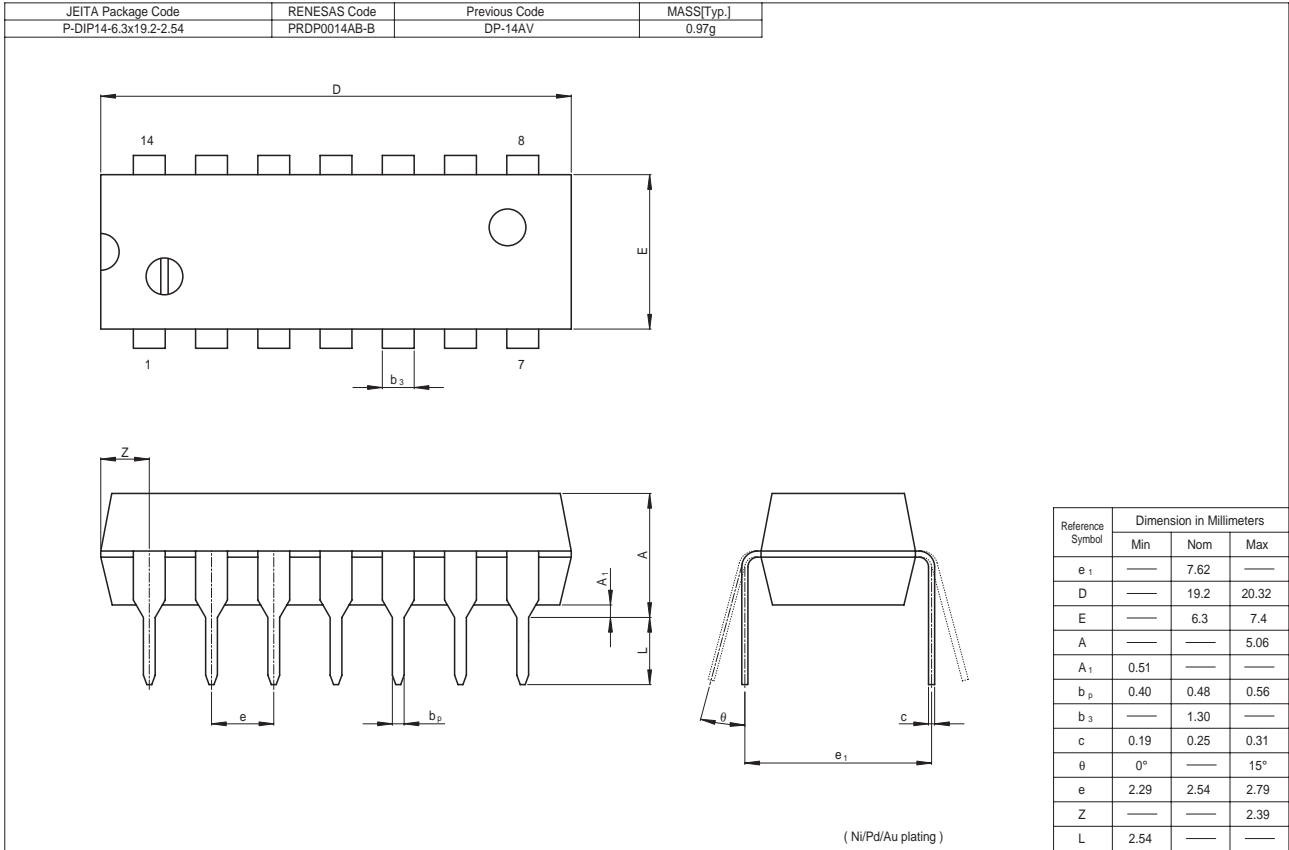
Switching Characteristics

($V_{CC} = 5$ V, $T_a = 25$ °C)

| Item | Symbol | Inputs | min. | typ. | max. | Unit | Condition |
|------------------------|-----------|--------|------|------|------|------|-------------------------------------|
| Propagation delay time | t_{PLH} | A or B | — | 18 | 30 | ns | $C_L = 15$ pF, $R_L = 2$ k Ω |
| | t_{PHL} | | — | 18 | 30 | | |
| | t_{PLH} | A or B | — | 18 | 30 | | |
| | t_{PHL} | | — | 18 | 30 | | |

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

Package Dimensions



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