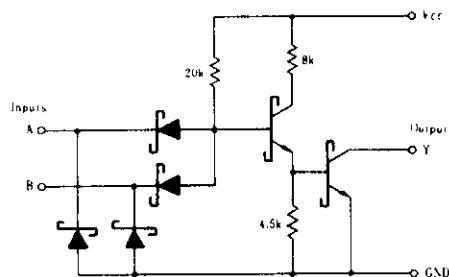
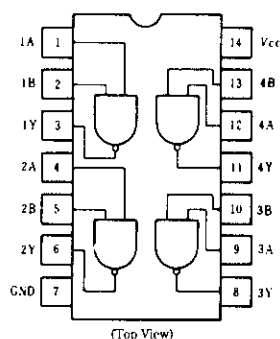


# HD74LS26 ● Quadruple 2-input High-voltage Interface Positive NAND Gates

## ■CIRCUIT SCHEMATIC(1/4)



## ■PIN ARRANGEMENT



## ■RECOMMENDED OPERATING CONDITIONS

| Item                      | Symbol   | min | typ | max | Unit |
|---------------------------|----------|-----|-----|-----|------|
| High level output voltage | $V_{OH}$ | —   | —   | 15  | V    |
| Low level output current  | $I_{OL}$ | —   | —   | 8   | mA   |

## ■ELECTRICAL CHARACTERISTICS ( $T_a = -20 \sim +75^\circ\text{C}$ )

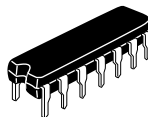
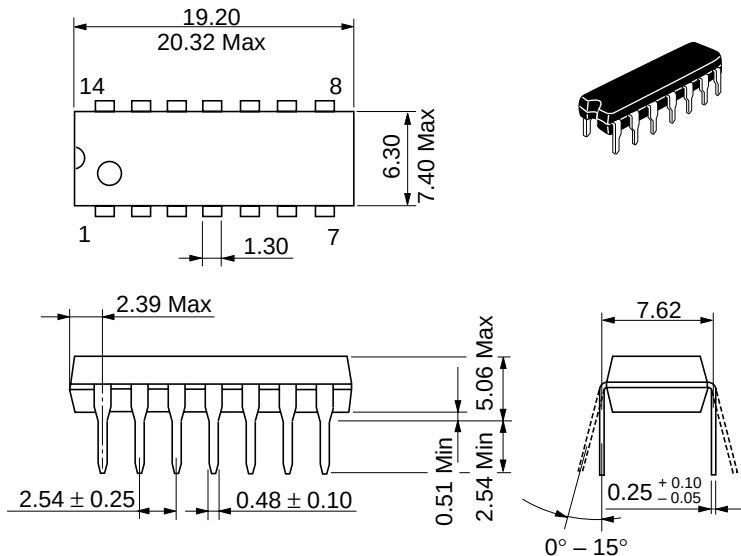
| Item                | Symbol    | Test Conditions                                | min                   | typ* | max  | Unit          |
|---------------------|-----------|------------------------------------------------|-----------------------|------|------|---------------|
| Input voltage       | $V_{IH}$  |                                                | 2.0                   | —    | —    | V             |
|                     | $V_{IL}$  |                                                | —                     | —    | 0.8  | V             |
| Output voltage      | $V_{OL}$  | $V_{CC} = 4.75\text{V}, V_I = 2\text{V}$       | $I_{OL} = 4\text{mA}$ | —    | 0.4  | V             |
|                     |           |                                                | $I_{OL} = 8\text{mA}$ | —    | 0.5  |               |
| Input current       | $I_{IH}$  | $V_{CC} = 5.25\text{V}, V_I = 2.7\text{V}$     | —                     | —    | 20   | $\mu\text{A}$ |
|                     | $I_{IL}$  | $V_{CC} = 5.25\text{V}, V_I = 0.4\text{V}$     | —                     | —    | 0.4  | mA            |
|                     | $I_I$     | $V_{CC} = 5.25\text{V}, V_I = 7\text{V}$       | —                     | —    | 0.1  | mA            |
| Output current      | $I_{OH}$  | $V_{CC} = 4.75\text{V}, V_{IL} = 0.8\text{V}$  | $V_{OH} = 12\text{V}$ | —    | 50   | $\mu\text{A}$ |
|                     |           |                                                | $V_{OH} = 15\text{V}$ | —    | 1    | mA            |
| Supply current      | $I_{CCH}$ | $V_{CC} = 5.25\text{V}$                        | —                     | 0.8  | 1.6  | mA            |
|                     | $I_{CCL}$ |                                                | —                     | 2.4  | 4.4  |               |
| Input clamp voltage | $V_{IK}$  | $V_{CC} = 4.75\text{V}, I_{IS} = -18\text{mA}$ | —                     | —    | -1.5 | V             |

\*  $V_{CC} = 5\text{V}, T_a = 25^\circ\text{C}$

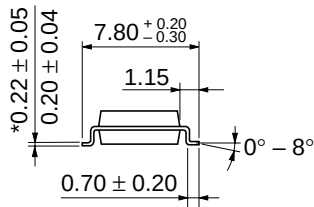
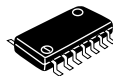
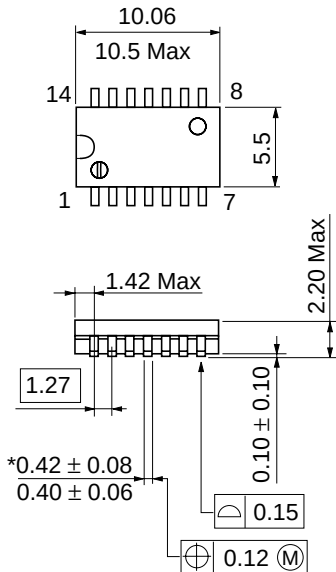
## ■SWITCHING CHARACTERISTICS ( $V_{CC} = 5\text{V}, T_a = 25^\circ\text{C}$ )

| Item                   | Symbol    | Test Conditions                            | min | typ | max | Unit |
|------------------------|-----------|--------------------------------------------|-----|-----|-----|------|
| Propagation delay time | $t_{PLH}$ | $C_L = 15\text{pF}, R_L = 2\text{k}\Omega$ | —   | 17  | 32  | ns   |
|                        | $t_{PHL}$ |                                            | —   | 15  | 28  |      |

Note) Refer to Test Circuit and Waveform of the Common Item

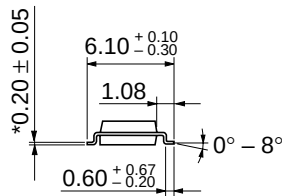
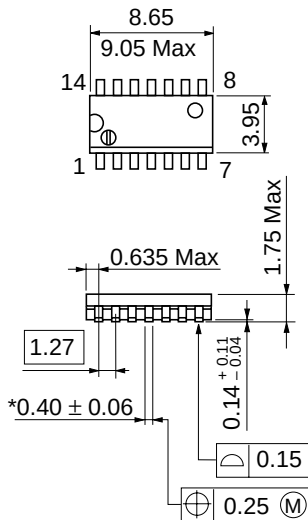


|                          |          |
|--------------------------|----------|
| Hitachi Code             | DP-14    |
| JEDEC                    | Conforms |
| EIAJ                     | Conforms |
| Weight (reference value) | 0.97 g   |



|                          |          |
|--------------------------|----------|
| Hitachi Code             | FP-14DA  |
| JEDEC                    | —        |
| EIAJ                     | Conforms |
| Weight (reference value) | 0.23 g   |

\*Dimension including the plating thickness  
Base material dimension



|                          |          |
|--------------------------|----------|
| Hitachi Code             | FP-14DN  |
| JEDEC                    | Conforms |
| EIAJ                     | Conforms |
| Weight (reference value) | 0.13 g   |

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