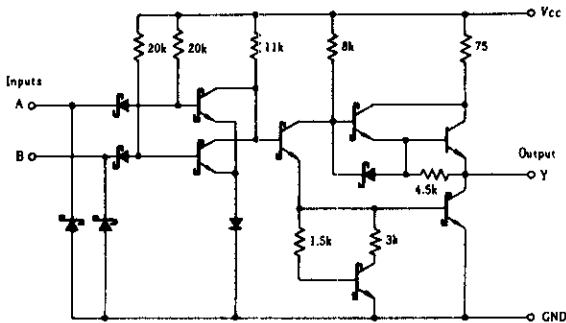
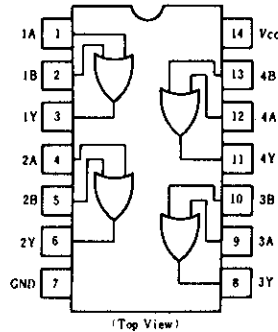


HD74LS32 ● Quadruple 2-input Positive OR Gates

■ CIRCUIT SCHEMATIC (1/4)



■ PIN ARRANGEMENT



■ 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_{OH} | $V_{CC}=4.75\text{V}, V_{IH}=2\text{V}, I_{OH}=-400\mu\text{A}$ | 2.7 | — | — | V | |
| | V_{OL} | $V_{CC}=4.75\text{V}, V_{IL}=0.8\text{V}$ | $I_{OL}=8\text{mA}$ | — | — | 0.5 | V |
| | | | $I_{OL}=4\text{mA}$ | — | — | 0.4 | |
| Input current | I_{IH} | $V_{CC}=5.25\text{V}, V_I=2.7\text{V}$ | — | — | 20 | μA | |
| | 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 | |
| Short-circuit output current | I_{OS} | $V_{CC}=5.25\text{V}$ | -20 | — | -100 | mA | |
| Supply current | I_{CCH} | $V_{CC}=5.25\text{V}$ | — | 3.1 | 6.2 | mA | |
| | I_{CCL} | $V_{CC}=5.25\text{V}$ | — | 4.9 | 9.8 | mA | |
| Input clamp voltage | V_{IK} | $V_{CC}=4.75\text{V}, I_{IN}=-18\text{mA}$ | — | — | -1.5 | V | |

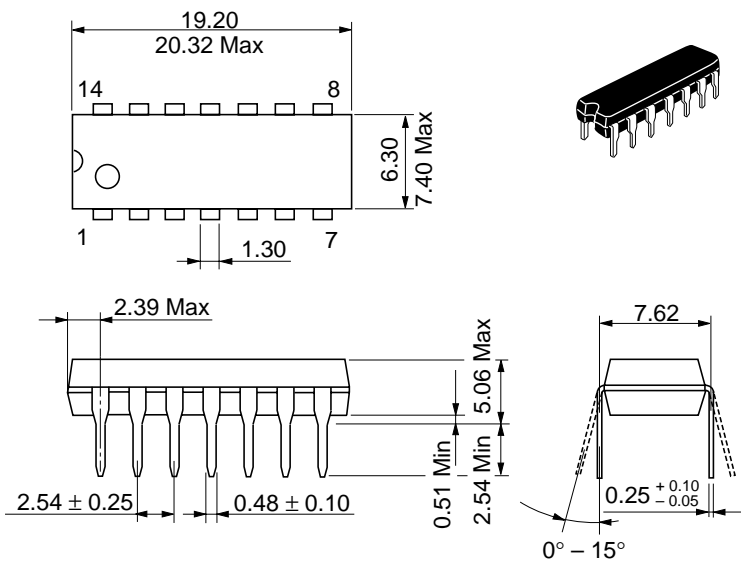
* $V_{CC}=5\text{V}, T_a=25^\circ\text{C}$

■ 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} | $C_L=15\text{pF}, R_L=2\text{k}\Omega$ | — | 14 | 22 | ns |
| | t_{PHL} | | — | 14 | 22 | ns |

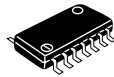
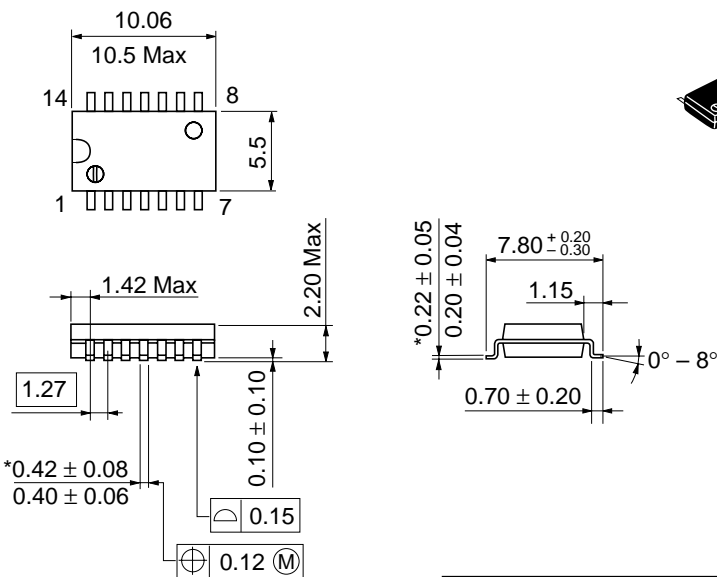
Note) Refer to Test Circuit and Waveform of the Common Item

Unit: mm



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

Unit: mm

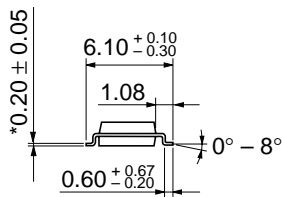
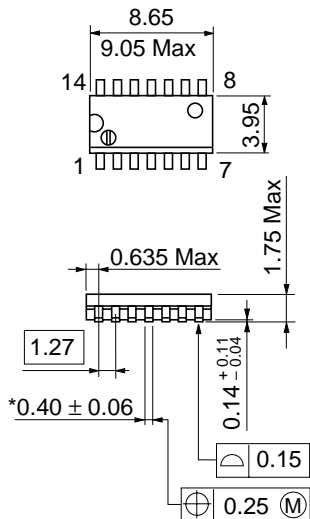


| | |
|--------------------------|----------|
| Hitachi Code | FP-14DA |
| JEDEC | — |
| EIAJ | Conforms |
| Weight (reference value) | 0.23 g |

*Dimension including the plating thickness
Base material dimension

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Unit: mm



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

*Pd plating

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