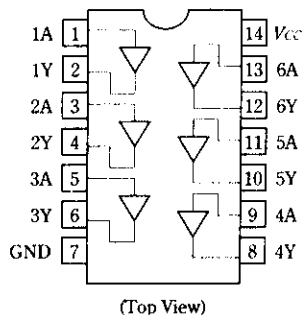


■ PIN ARRANGEMENT



■ ABSOLUTE MAXIMUM RATINGS

| Item | Symbol | Ratings | Unit |
|-----------------------------|-----------|------------|------|
| Supply voltage | V_{CC} | 7.0 | V |
| Input voltage | V_{IN} | 7.0 | V |
| Output voltage | V_{out} | 30 | V |
| Operating temperature range | T_{opr} | -20 ~ +75 | °C |
| Storage temperature range | T_{stg} | -65 ~ +150 | °C |

■ RECOMMENDED OPERATING CONDITIONS

| Item | Symbol | min | typ | max | Unit |
|-----------------------------|-----------|------|------|------|------|
| Supply voltage | V_{CC} | 4.75 | 5.00 | 5.25 | V |
| High level output voltage | V_{OH} | - | - | 30 | V |
| Low level output current | I_{OL} | - | - | 48 | mA |
| Operating temperature range | T_{opr} | -20 | 25 | 75 | °C |

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

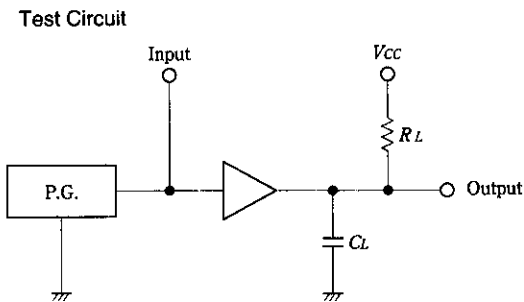
| Item | Symbol | Test Conditions | min | typ* | max | Unit | |
|---------------------|-----------|--|------------------------|------|------|---------------|---|
| Input voltage | V_{IH} | | 2.0 | - | - | V | |
| | V_{IL} | | - | - | 0.8 | V | |
| Output voltage | V_{OL} | $V_{CC} = 4.75\text{V}, V_{IL} = 0.8\text{V}$ | $I_{OL} = 24\text{mA}$ | - | - | 0.4 | V |
| | | | $I_{OL} = 48\text{mA}$ | - | - | 0.5 | V |
| 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 | |
| Output current | I_{OH} | $V_{CC} = 4.75\text{V}, V_{IH} = 2\text{V}, V_{OH} = 30\text{V}$ | - | - | 250 | μA | |
| Supply current | I_{CCH} | $V_{CC} = 5.25\text{V}$ | - | 22 | 41 | mA | |
| | I_{CCL} | $V_{CC} = 5.25\text{V}$ | - | 17 | 30 | mA | |
| Input clamp voltage | V_{IK} | $V_{CC} = 4.75\text{V}, I_{IN} = -18\text{mA}$ | - | - | -1.5 | V | |

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

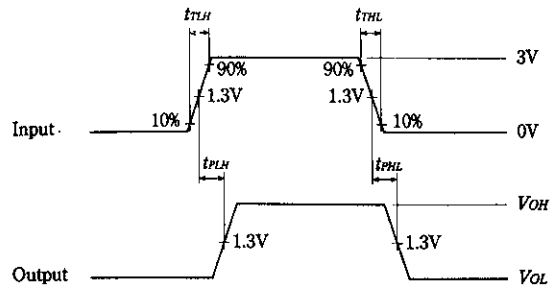
■ SWITCHING CHARACTERISTICS ($V_{CC} = 5\text{V}, T_a = 25^\circ\text{C}$)

| Item | Symbol | Test Conditions | min | typ | max | Unit |
|------------------------|-----------|--------------------------------------|-----|-----|-----|------|
| Propagation delay time | t_{PLH} | $C_L = 15\text{pF}, R_L = 110\Omega$ | - | 10 | 15 | ns |
| | t_{PHL} | | - | 20 | 30 | ns |

■ TESTING METHOD



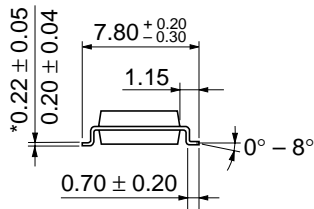
Waveform



- Notes) 1. Input pulse: PRR = 1MHz, duty cycle 50%, $Z_{out} = 50\Omega, t_{TLH} \leq 15\text{ns}, t_{THL} \leq 6\text{ns}$
 2. C_L includes probe and jig capacitance.
 3. All diodes are 1S2074(H)



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



*Dimension including the plating thickness
Base material dimension

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

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