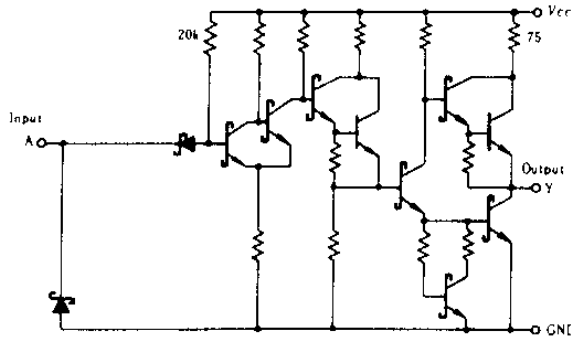
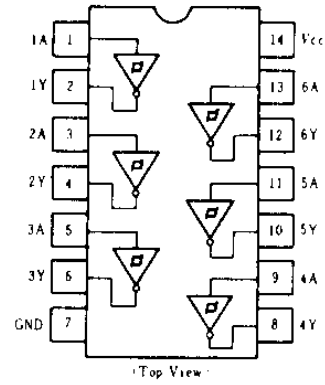


■ CIRCUIT SCHEMATIC (1/6)



■ PIN ARRANGEMENT



■ ELECTRICAL CHARACTERISTICS (Ta = -20 ~ +75°C)

| Item | Symbol | Test Conditions | min | typ* | max | Unit | |
|------------------------------|---------------------|--|--------------|-------|------|---------|---|
| Input threshold voltage | V_{T^+} | $V_{CC}=5V$ | 1.4 | 1.6 | 1.9 | V | |
| | V_{T^-} | $V_{CC}=5V$ | 0.5 | 0.7 | 1.0 | V | |
| Hysteresis | $V_{T^+} - V_{T^-}$ | $V_{CC}=5V$ | 0.4 | 0.9 | — | V | |
| Output voltage | V_{OH} | $V_{CC}=4.75V, V_I=0.5V, I_{OH}=-400\mu A$ | 2.7 | — | — | V | |
| | V_{OL} | $V_{CC}=4.75V, V_I=1.9V$ | $I_{OL}=8mA$ | — | — | 0.50 | V |
| | | | $I_{OL}=4mA$ | — | — | 0.40 | |
| Input threshold current | I_{T^+} | $V_{CC}=5V, V_I=V_{T^+}$ | — | -0.14 | — | mA | |
| | I_{T^-} | $V_{CC}=5V, V_I=V_{T^-}$ | — | -0.18 | — | mA | |
| Input current | I_{IH} | $V_{CC}=5.25V, V_I=2.7V$ | — | — | 20 | μA | |
| | I_{IL} | $V_{CC}=5.25V, V_I=0.4V$ | — | — | -0.4 | mA | |
| | I_I | $V_{CC}=5.25V, V_I=7V$ | — | — | 0.1 | mA | |
| Short-circuit output current | I_{OS} | $V_{CC}=5.25V$ | -20 | — | -100 | mA | |
| Supply current | I_{CCH} | $V_{CC}=5.25V$ | — | 8.6 | 16 | mA | |
| | I_{CCL} | $V_{CC}=5.25V$ | — | 12 | 21 | mA | |
| Input clamp voltage | V_{IK} | $V_{CC}=4.75V, I_{IN}=-18mA$ | — | — | -1.5 | V | |

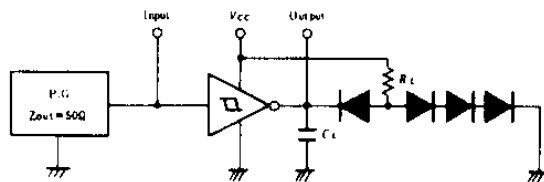
* $V_{CC}=5V, T_a=25^\circ C$

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

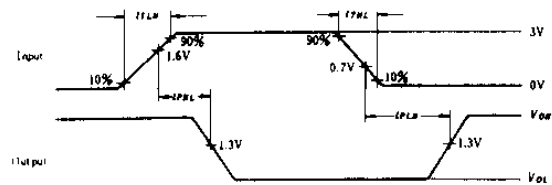
| Item | Symbol | Test Conditions | min | typ | max | Unit |
|------------------------|-----------|--------------------------|-----|-----|-----|------|
| Propagation delay time | t_{PLH} | $C_L=15pF, R_L=2k\Omega$ | — | 15 | 22 | ns |
| | t_{PHL} | | — | 15 | 22 | ns |

■ TESTING METHOD

1. Test Circuit

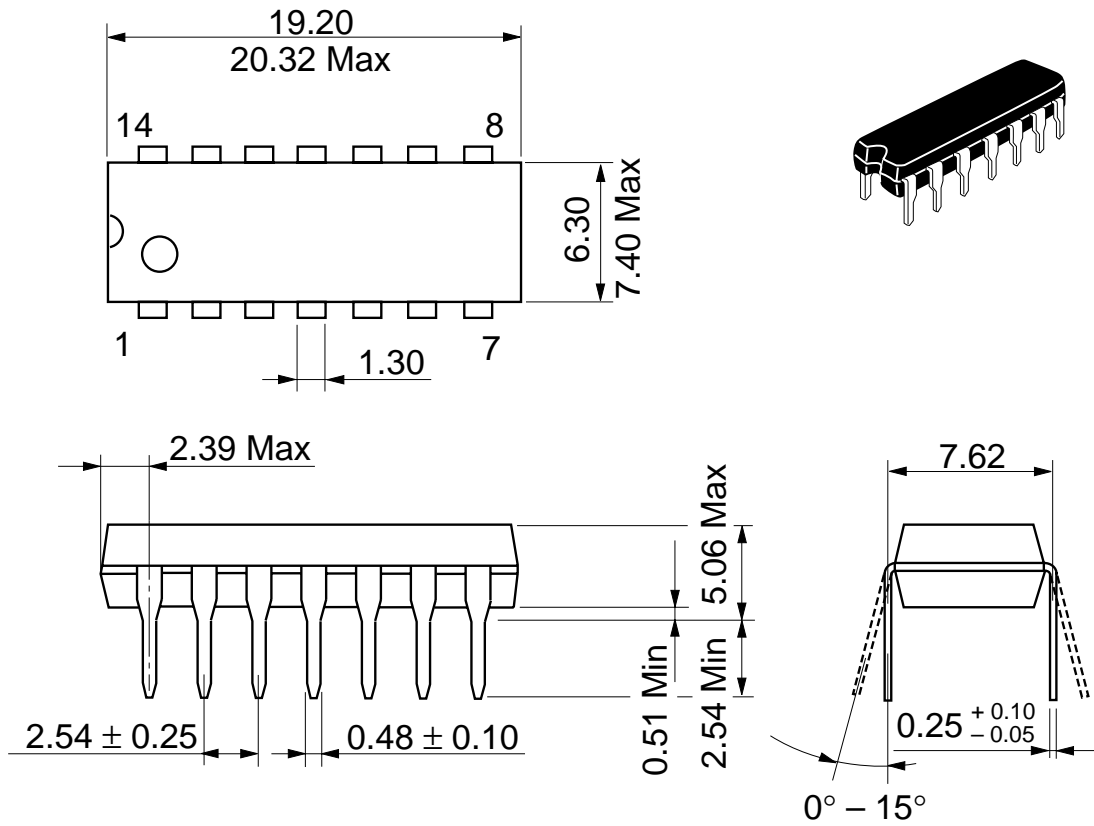


Waveform



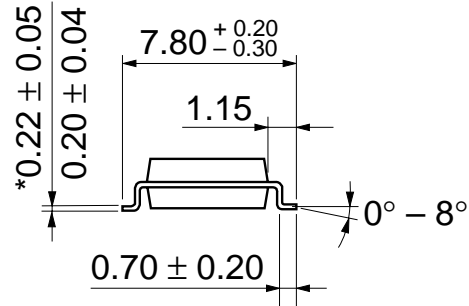
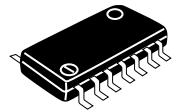
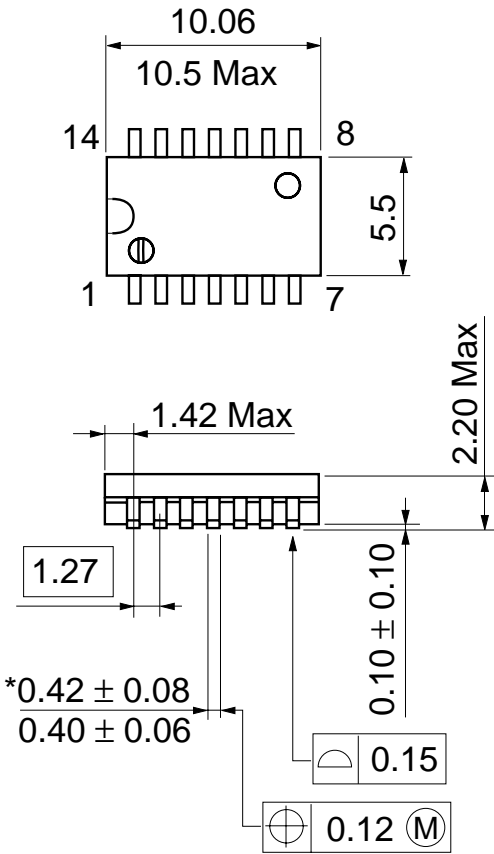
- Notes) 1. Input pulse; $t_{TLH} \leq 15ns, t_{THL} \leq 6ns, PRR=1MHz, \text{duty cycle}=50\%$
 2. C_L includes probe and jig capacitance.
 3. All diodes are 1S2074 \oplus .

Unit: mm



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

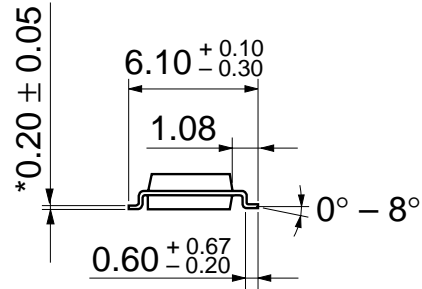
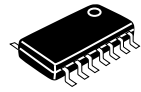
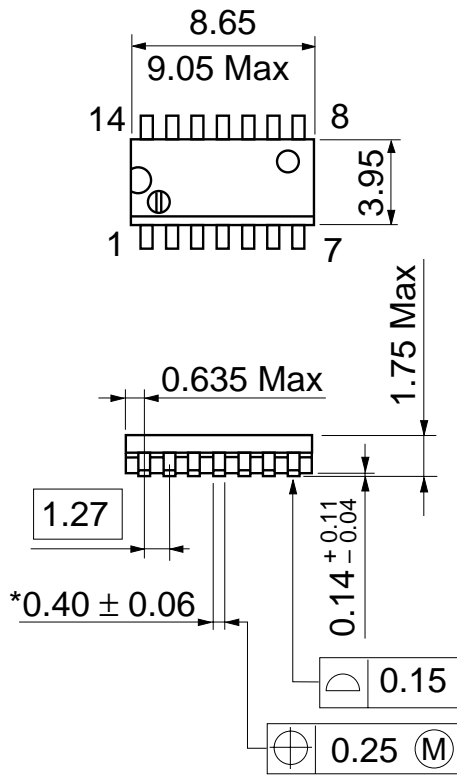
Unit: mm



*Dimension including the plating thickness
 Base material dimension

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

Unit: mm



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

*Pd plating

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