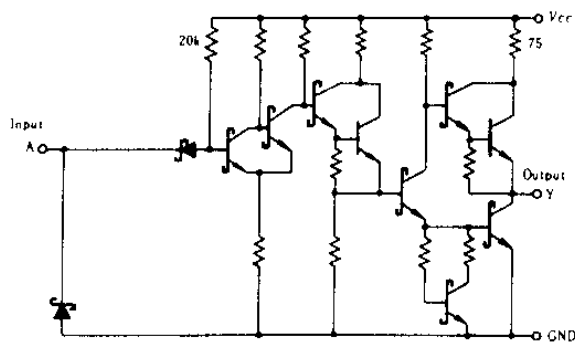
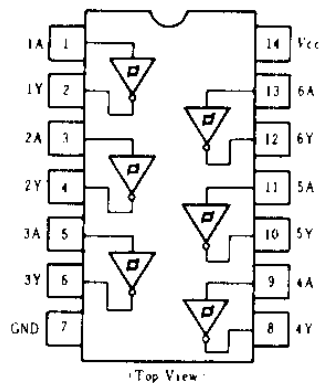


## ■ CIRCUIT SCHEMATIC (1/6)



## ■ PIN ARRANGEMENT



(Top View)

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

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

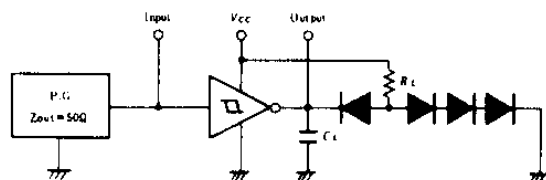
\*  $V_{CC}=5\text{V}, T_a=25^\circ\text{C}$

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

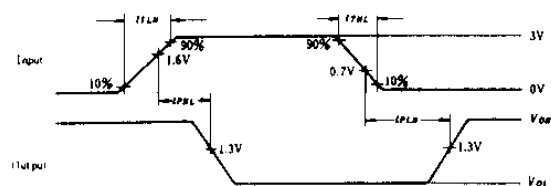
Item	Symbol	Test Conditions	min	typ	max	Unit
Propagation delay time	$t_{PLH}$	$C_L=15\text{pF}, R_L=2\text{k}\Omega$	—	15	22	ns
	$t_{PHL}$		—	15	22	ns

## ■ TESTING METHOD

### 1. Test Circuit

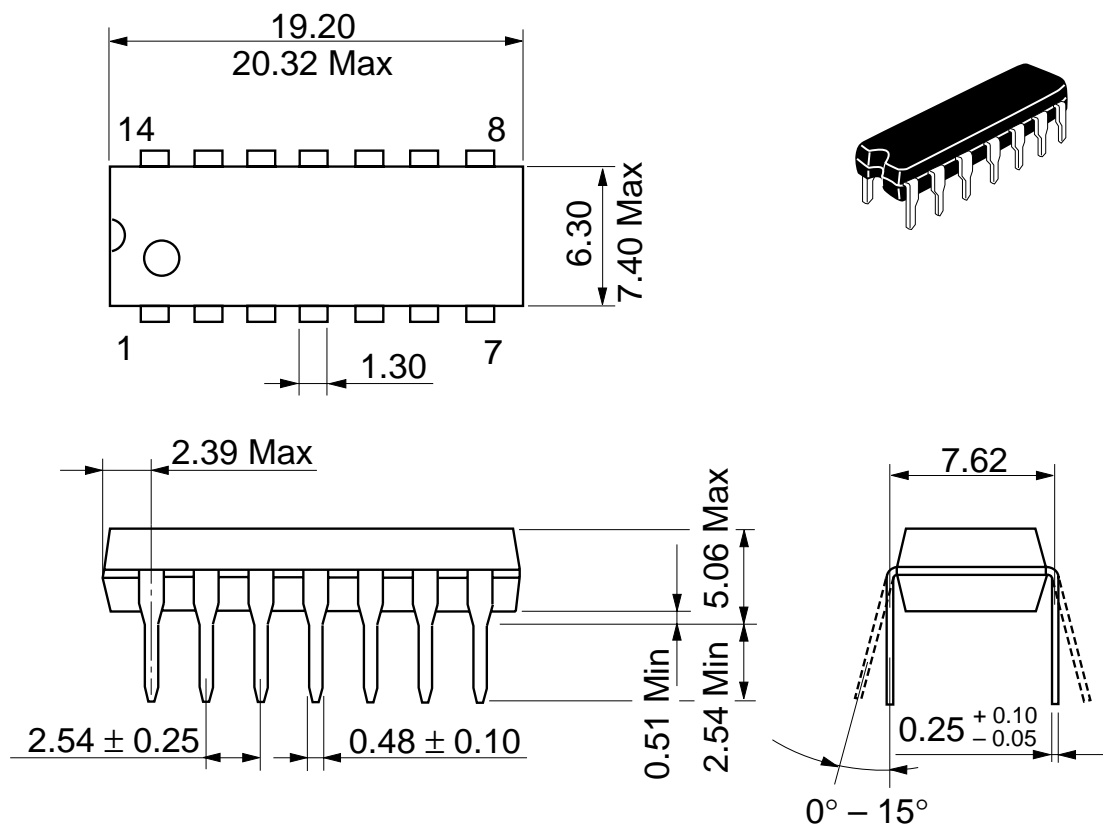


### Waveform



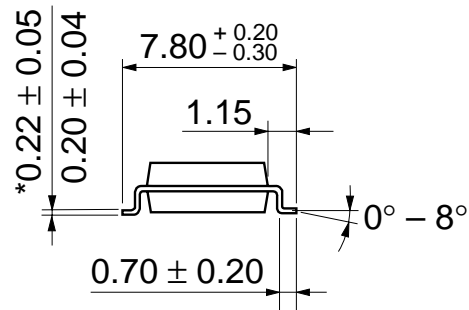
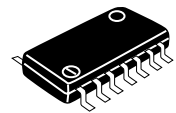
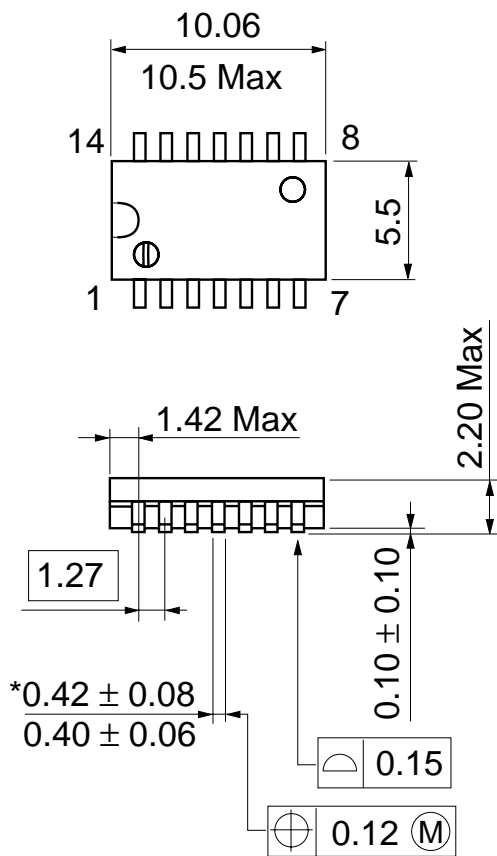
- Notes) 1. Input pulse;  $t_{TLH} \leq 15\text{ns}$ ,  $t_{THL} \leq 6\text{ns}$ ,  $PRR=1\text{MHz}$ , duty cycle=50%  
 2.  $C_L$  includes probe and jig capacitance.  
 3. All diodes are 1S2074  $\oplus$ .

Unit: mm



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

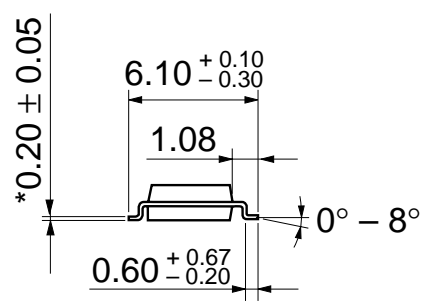
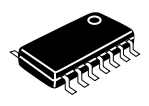
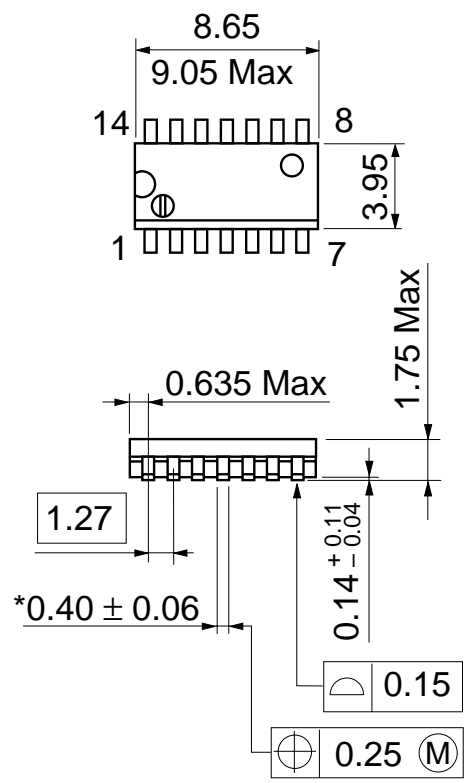
Unit: mm



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

\*Dimension including the plating thickness  
Base material dimension

Unit: mm



\*Pd plating

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

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# HITACHI

## Hitachi, Ltd.

Semiconductor & Integrated Circuits.

Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan

Tel: Tokyo (03) 3270-2111 Fax: (03) 3270-5109

URL	North America	: <a href="http://semiconductor.hitachi.com/">http://semiconductor.hitachi.com/</a>
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	Japan	: <a href="http://www.hitachi.co.jp/Sicd/indx.htm">http://www.hitachi.co.jp/Sicd/indx.htm</a>

### For further information write to:

Hitachi Semiconductor  
(America) Inc.  
179 East Tasman Drive,  
San Jose, CA 95134  
Tel: <1> (408) 433-1990  
Fax: <1> (408) 433-0223

Hitachi Europe GmbH  
Electronic components Group  
Dornacher StraÙe 3  
D-85622 Feldkirchen, Munich  
Germany  
Tel: <49> (89) 9 9180-0  
Fax: <49> (89) 9 29 30 00

Hitachi Europe Ltd.  
Electronic Components Group.  
Whitebrook Park  
Lower Cookham Road  
Maidenhead  
Berkshire SL6 8YA, United Kingdom  
Tel: <44> (1628) 585000  
Fax: <44> (1628) 778322

Hitachi Asia Pte. Ltd.  
16 Collyer Quay #20-00  
Hitachi Tower  
Singapore 049318  
Tel: 535-2100  
Fax: 535-1533

Hitachi Asia Ltd.  
Taipei Branch Office  
3F, Hung Kuo Building, No.167,  
Tun-Hwa North Road, Taipei (105)  
Tel: <886> (2) 2718-3666  
Fax: <886> (2) 2718-8180

Hitachi Asia (Hong Kong) Ltd.  
Group III (Electronic Components)  
7/F., North Tower, World Finance Centre,  
Harbour City, Canton Road, Tsim Sha Tsui,  
Kowloon, Hong Kong  
Tel: <852> (2) 735 9218  
Fax: <852> (2) 730 0281  
Telex: 40815 HITEC HX

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