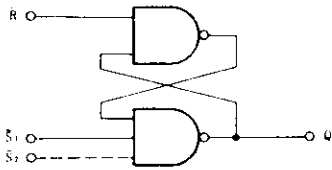
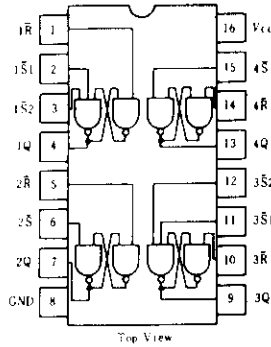


HD74LS279 ● Quadruple S-R Latches

■ BLOCK DIAGRAM (1/4)



■ PIN ARRANGEMENT



■ FUNCTION TABLE

Inputs		Outputs
\bar{S}^{**}	R	Q
H	H	Q_0
L	H	H
H	L	L
L	L	H^*

- Notes) 1. H: high level, L: low level
 2. Q_0 : The level of Q before the indicated input conditions were established.
 3. *: This output level is psodo stable; that is, it may not persist when \bar{S} and \bar{R} inputs return to their inactive (high) level.
 4. **: For latches with double \bar{S} inputs: H: both \bar{S} inputs high, L: one or both \bar{S} inputs low.

■ 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}	$V_{CC} = 4.75\text{V}, V_{IH} = 2\text{V}, V_{IL} = 0.8\text{V}, I_{OH} = 400\mu\text{A}$	2.7	—	—	V	
	V_{OL}	$V_{CC} = 4.75\text{V}, V_{IH} = 2\text{V}, V_{IL} = 0.8\text{V}$	$I_{OL} = 4\text{mA}$	—	—	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	μA	
	I_{IL}	$V_{CC} = 5.25\text{V}, V_i = 0.4\text{V}$	—	—	-0.6	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_{CC}	$V_{CC} = 5.25\text{V}$	—	3.8	7	mA	
Input clamp voltage	V_{IK}	$V_{CC} = 4.75\text{V}, I_{IK} = 18\text{mA}$	—	—	1.5	V	

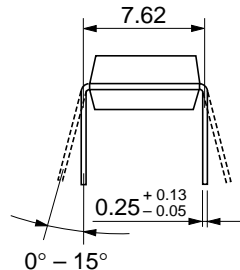
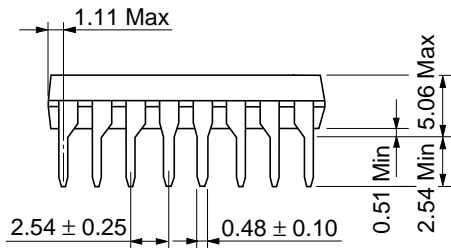
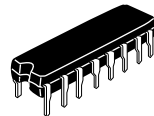
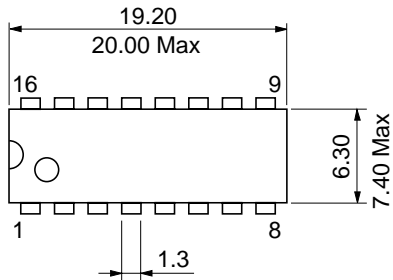
* $V_{CC} = 5\text{V}, T_a = 25^\circ\text{C}$

** I_{CC} is measured with all \bar{R} inputs grounded, all \bar{S} inputs at 4.5V, and all outputs open.

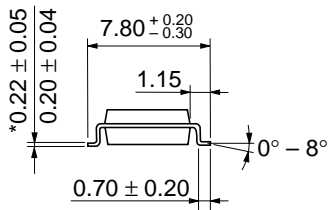
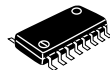
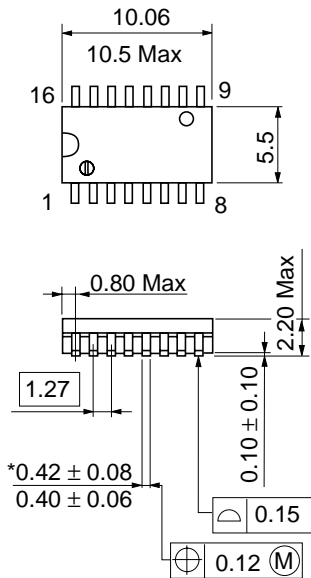
■ SWITCHING CHARACTERISTICS ($V_{CC} = 5\text{V}, T_a = 25^\circ\text{C}$)

Item	Symbol	Inputs	Output	Test Conditions	min	typ	max	Unit
Propagation delay time	t_{PLH}	\bar{S}	Q	$C_L = 15\text{pF}, R_L = 2\text{k}\Omega$	—	12	22	ns
	t_{PHL}				—	13	21	ns
	t_{PHL}	\bar{R}			—	15	27	ns

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

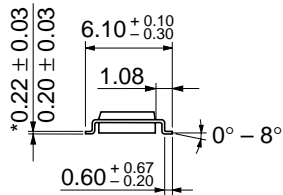
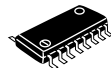
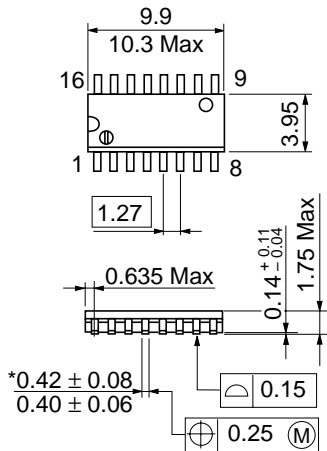


Hitachi Code	DP-16
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	1.07 g



*Dimension including the plating thickness
Base material dimension

Hitachi Code	FP-16DA
JEDEC	—
EIAJ	Conforms
Weight (reference value)	0.24 g



*Dimension including the plating thickness
Base material dimension

Hitachi Code	FP-16DN
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	0.15 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

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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 Straße 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
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