

To our customers,

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## Old Company Name in Catalogs and Other Documents

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April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

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# HD74LS126A

Quadruple Bus Buffer Gates (with three-state outputs)

REJ03D0431-0300  
Rev.3.00  
Jul.13.2005

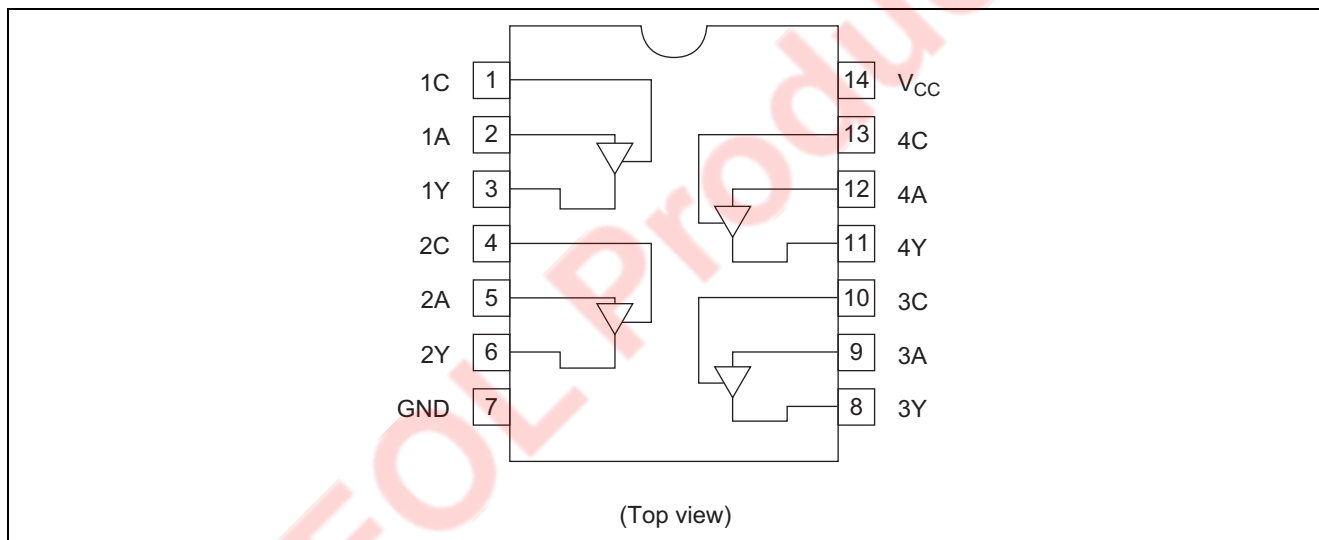
## Features

- Ordering Information

Part Name	Package Type	Package Code (Previous Code)	Package Abbreviation	Taping Abbreviation (Quantity)
HD74LS126AFPEL	SOP-14 pin(JEITA)	PRSP0014DF-B (FP-14DAV)	FP	EL (2,000 pcs/reel)
HD74LS126ARPEL	SOP-14 pin(JEDEC)	PRSP0014DE-A (FP-14DNV)	RP	EL (2,500 pcs/reel)

Note: Please consult the sales office for the above package availability.

## Pin Arrangement



## Function Table

Inputs		Output
C	A	Y
L	X	Z
H	H	H
H	L	L

Note: H ; high level,  
L ; low level,  
X ; irrelevant,  
Z ; off (high-impedance) state of a 3-state output

## Absolute Maximum Ratings

Item	Symbol	Ratings	Unit
Supply voltage	$V_{CC}$	7	V
Input voltage	$V_{IN}$	7	V
Power dissipation	$P_T$	400	mW
Storage temperature	$T_{stg}$	-65 to +150	°C

Note: Voltage value, unless otherwise noted, are with respect to network ground terminal.

## Recommended Operating Conditions

Item	Symbol	Min	Typ	Max	Unit
Supply voltage	$V_{CC}$	4.75	5.00	5.25	V
High level output current	$I_{OH}$	—	—	-2.6	mA
Low level output current	$I_{OL}$	—	—	24	mA
Operating temperature	$T_{opr}$	-20	25	75	°C

## Electrical Characteristics

( $T_a = -20$  to  $+75$  °C)

Item	Symbol	min.	typ.*	max.	Unit	Condition
Input voltage	$V_{IH}$	2.0	—	—	V	
	$V_{IL}$	—	—	0.8	V	
Output voltage	$V_{OH}$	2.4	—	—	V	$V_{CC} = 4.75$ V, $V_{IH} = 2$ V, $I_{OH} = -2.6$ mA $I_{OL} = 24$ mA $I_{OL} = 12$ mA
	$V_{OL}$	—	—	0.5 0.4	V	
Off-state output current	$I_{OZH}$	—	—	20	$\mu$ A	$V_O = 2.4$ V $V_O = 0.4$ V
	$I_{OZL}$	—	—	-20	$\mu$ A	
Input current	$I_{IH}$	—	—	20	$\mu$ A	$V_{CC} = 5.25$ V, $V_I = 2.7$ V
	$I_{IL}$	—	—	-0.4	mA	A input
		—	—	-0.4		C input
	$I_I$	—	—	0.1	mA	$V_{CC} = 5.25$ V, $V_I = 7$ V
Short-circuit output current	$I_{OS}$	-40	—	-225	mA	$V_{CC} = 5.25$ V
Supply current	$I_{CC}^{**}$	—	12	22	mA	$V_{CC} = 5.25$ V
Input clamp voltage	$V_{IK}$	—	—	-1.5	V	$V_{CC} = 4.75$ V, $I_{IN} = -18$ mA

Notes: \*  $V_{CC} = 5$  V,  $T_a = 25$  °C

\*\*  $I_{CC}$  is measured with the A and C input grounded.

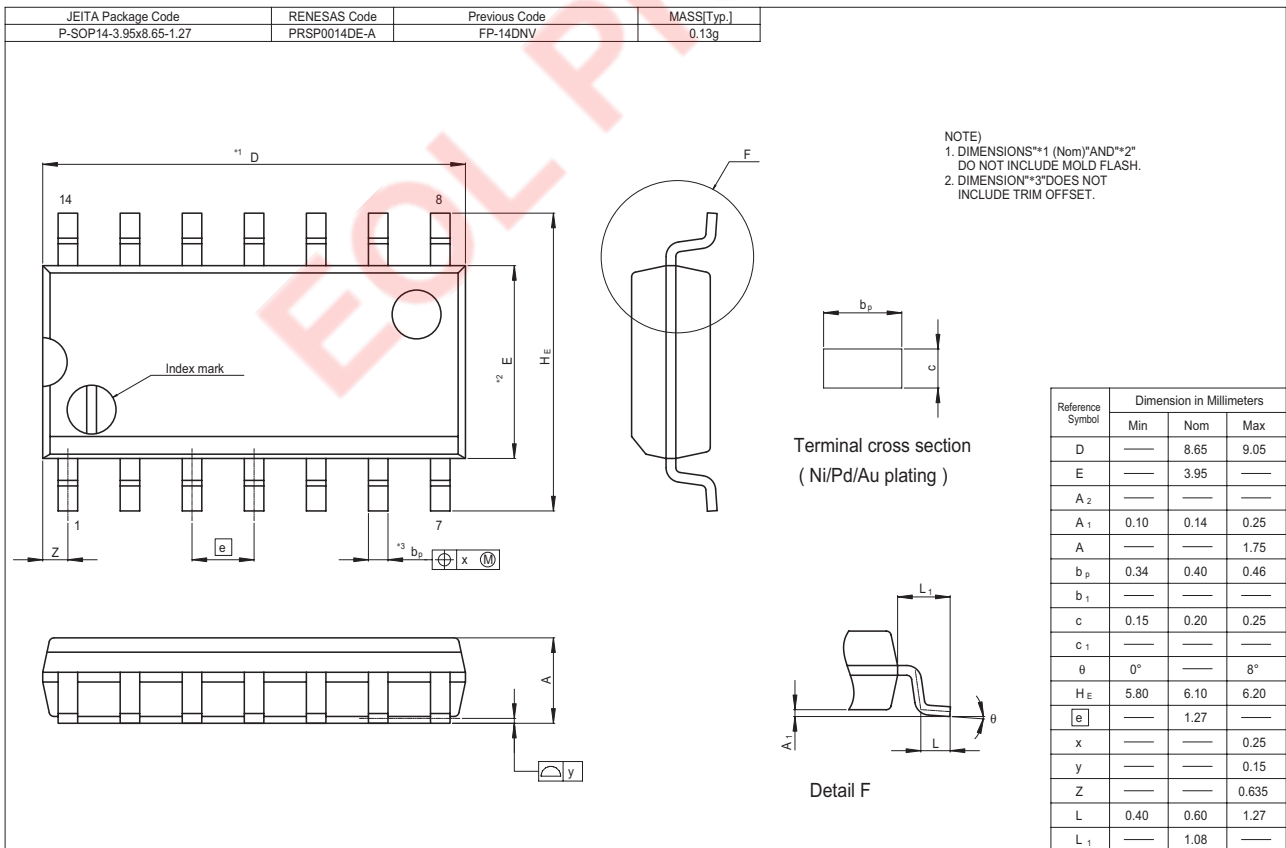
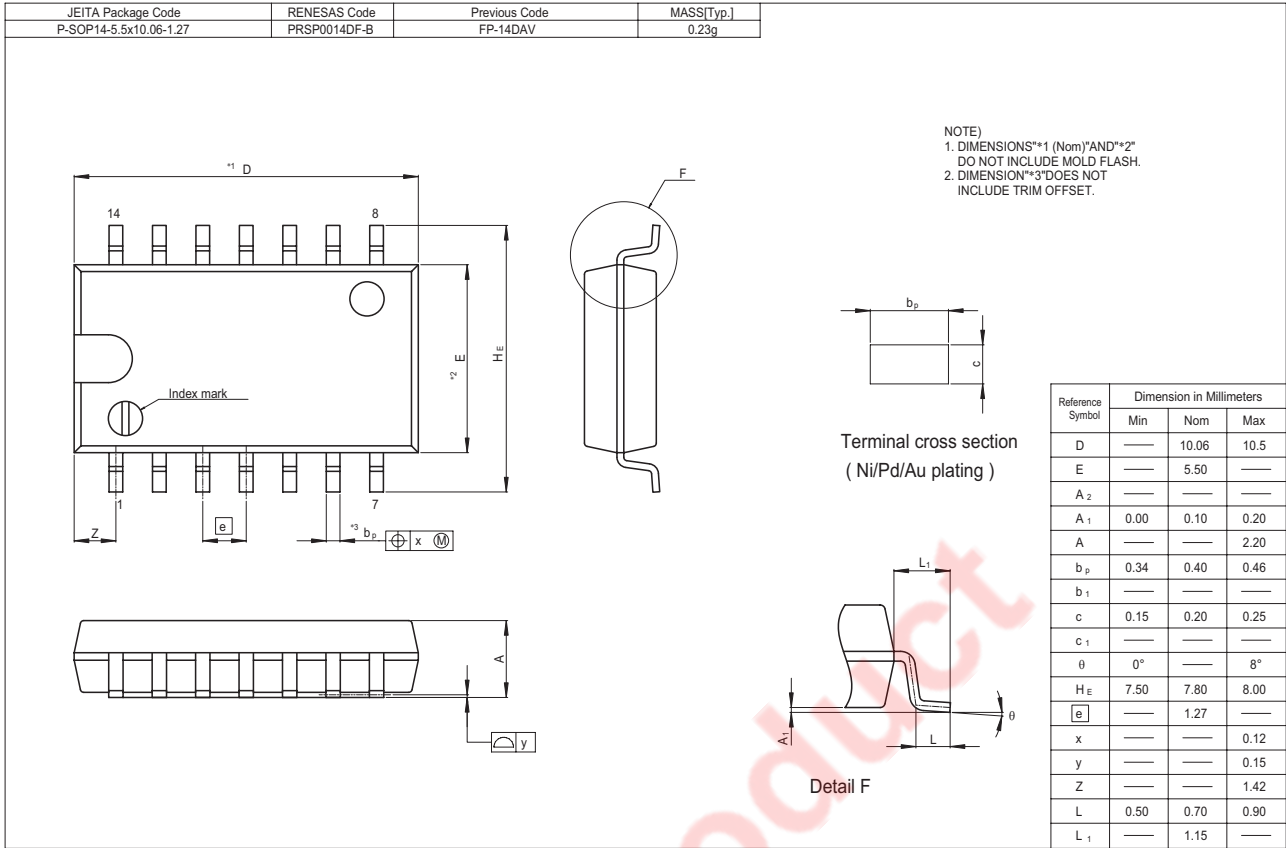
## Switching Characteristics

( $V_{CC} = 5$  V,  $T_a = 25$  °C)

Item	Symbol	min.	typ.	max.	Unit	Condition
Propagation delay time	$t_{PLH}$	—	9	15	ns	$C_L = 45$ pF, $R_L = 667$ $\Omega$
	$t_{PHL}$	—	8	18		
Output enable time	$t_{ZH}$	—	16	25	ns	
	$t_{ZL}$	—	21	35		
Output disable time	$t_{HZ}$	—	—	25	ns	$C_L = 5$ pF, $R_L = 667$ $\Omega$
	$t_{LZ}$	—	—	25		

Note: Refer to Test Circuit and Waveform of the Common Item "TTL Common Matter (Document No.: REJ27D0005-0100)".

Package Dimensions



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