

HD74LS07

Hex Buffers / Drivers
(With Open Collector High-Voltage Outputs)

REJ03D0393-0200

Rev.2.00

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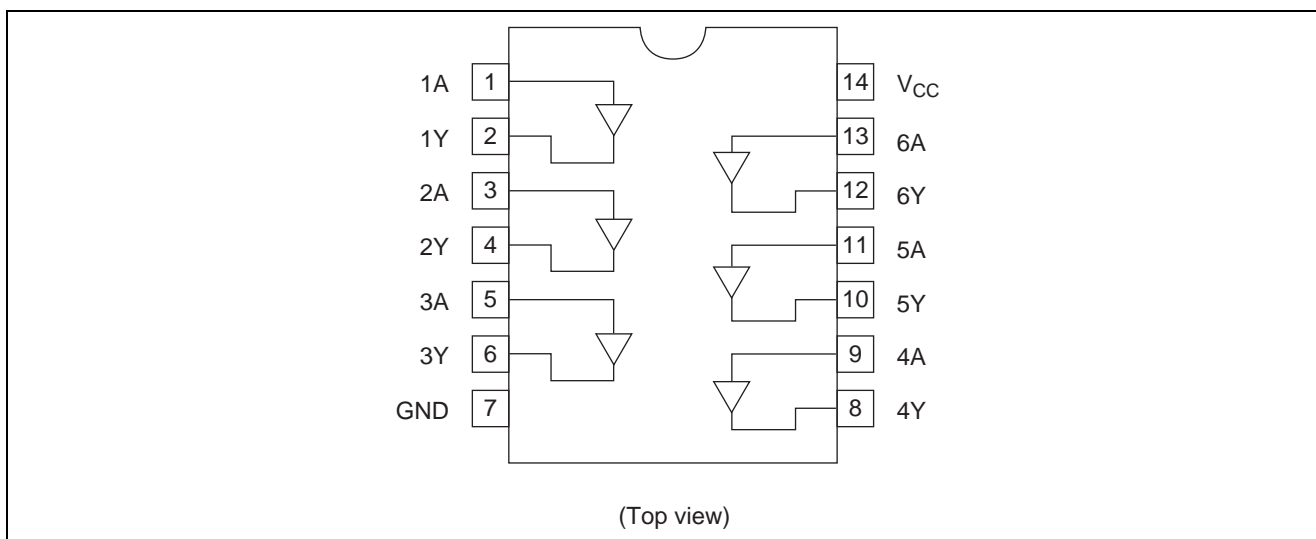
Features

- Ordering Information

Part Name	Package Type	Package Code (Previous Code)	Package Abbreviation	Taping Abbreviation (Quantity)
HD74LS07P	DILP-14 pin	PRDP0014AB-B (DP-14AV)	P	—
HD74LS07FPEL	SOP-14 pin (JEITA)	PRSP0014DF-B (FP-14DAV)	FP	EL (2,000 pcs/reel)

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

Pin Arrangement



Absolute Maximum Ratings

Item	Symbol	Ratings	Unit
Supply voltage	V_{CC} ^{Note}	7	V
Input voltage	V_{IN}	7	V
Output voltage	V_{OUT}	30	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
Output voltage	V_{OH}	—	—	30	V
Output current	I_{OL}	—	—	48	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_{OL}	—	—	0.4	V	$I_{OL} = 24$ mA $V_{CC} = 4.75$ V, $V_{IL} = 0.8$ V
		—	—	0.5		
Input current	I_{IH}	—	—	20	μA	$V_{CC} = 5.25$ V, $V_I = 2.7$ V
	I_{IL}	—	—	-0.4	mA	$V_{CC} = 5.25$ V, $V_I = 0.4$ V
	I_I	—	—	0.1	mA	$V_{CC} = 5.25$ V, $V_I = 7$ V
Output current	I_{OH}	—	—	250	μA	$V_{CC} = 4.75$ V, $V_{IH} = 2$ V, $V_{OH} = 30$ V
Supply current	I_{CCH}	—	22	41	mA	$V_{CC} = 5.25$ V
	I_{CCL}	—	17	30	mA	$V_{CC} = 5.25$ V
Input clamp voltage	V_{IK}	—	—	-1.5	V	$V_{CC} = 4.75$ V, $I_{IN} = -18$ mA

Note: * $V_{CC} = 5$ V, $T_a = 25$ °C

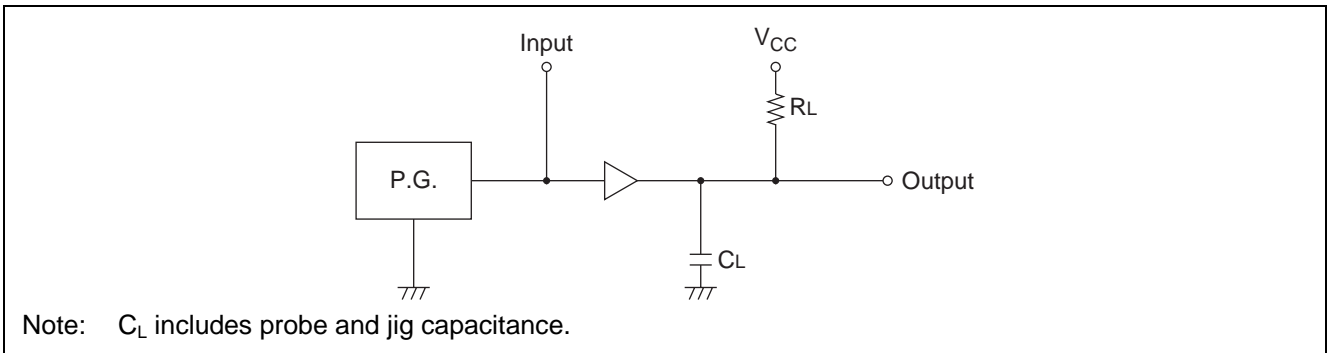
Switching Characteristics

($V_{CC} = 5$ V, $T_a = 25$ °C)

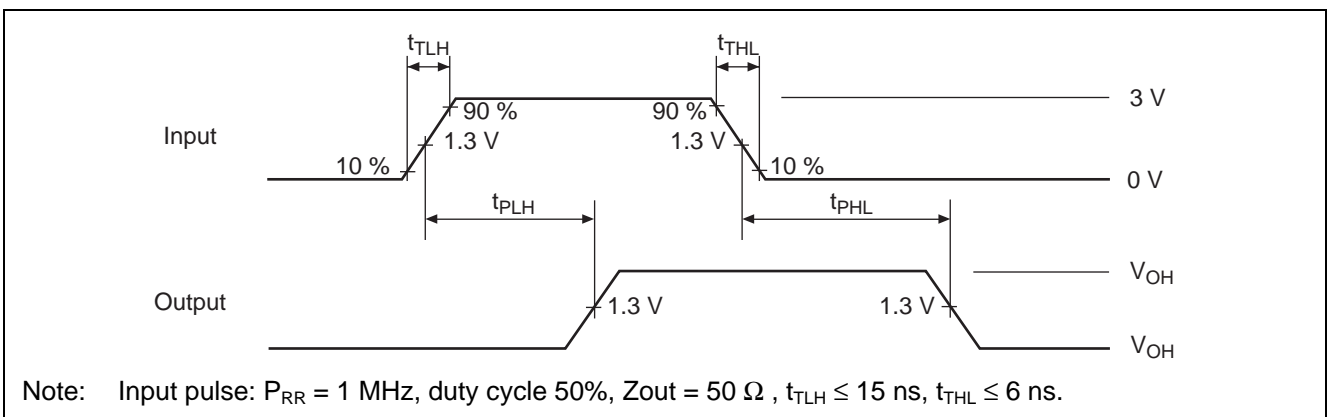
Item	Symbol	min.	typ.	max.	Unit	Condition
Propagation delay time	t_{PLH}	—	10	15	ns	$C_L = 15$ pF, $R_L = 100$ Ω
	t_{PHL}	—	20	30	ns	

Testing Method

Test Circuit



Waveform



Package Dimensions



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