

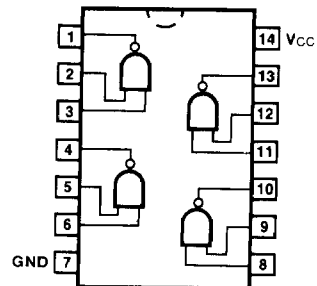
96101 035025

**QUAD 2-INPUT POSITIVE NAND BUFFER**  
(With Open-Collector Output)

**DESCRIPTION** — The 96101 is similar to the 54/7439, except that the outputs are specified at three levels of  $I_{OL}$ ; in the HIGH state the  $I_{OH}$  current is specified at two levels of  $V_{OH}$ . During switching transitions, output current change rate is typically 4.0 mA/ns.

**ORDERING CODE:** See Section 9

**CONNECTION DIAGRAM**  
PINOUT A



PKGS	PIN OUT	COMMERCIAL GRADE	MILITARY GRADE	PKG TYPE
		$V_{CC} = +5.0 \text{ V} \pm 5\%$ , $T_A = 0^\circ \text{C to } +75^\circ \text{C}$	$V_{CC} = +5.0 \text{ V} \pm 10\%$ , $T_A = -55^\circ \text{C to } +125^\circ \text{C}$	
Plastic DIP (P)	A	96101PC		9A
Ceramic DIP (D)	A	96101DC	96101DM	6A

**INPUT LOADING/FAN-OUT:** See Section 3 for U.L. definitions

PINS	96XX (U.L.) HIGH/LOW
Inputs	1.0/1.0
Outputs	OC**/30

**DC AND AC CHARACTERISTICS:** See Section 3\*

SYMBOL	PARAMETER	96XX		UNITS	CONDITIONS
		Min	Max		
$V_{IH}$	Input HIGH Voltage	2.0		V	
$V_{IL}$	Input LOW Voltage	0.8		V	
$V_{OL}$	Output LOW Voltage	0.4		V	$V_{CC} = \text{Min}$ $V_{IN} = V_{IH}$
		0.5			
		0.6			
$I_{OH}$	Output HIGH Current	25		$\mu\text{A}$	$V_{OH} = 3.5 \text{ V}$ $V_{OH} = 5.5 \text{ V}$
		50			
$I_{IH}$	Input HIGH Current	40		$\mu\text{A}$	$V_{IN} = 2.4 \text{ V}$ $V_{IN} = 5.5 \text{ V}$
		1.0			
$I_{IL}$	Input LOW Current	-1.6		mA	$V_{IN} = 0.4 \text{ V}, V_{CC} = \text{Max}$
$I_{CCH}$ $I_{CCL}$	Power Supply Current	8.5		mA	$V_{IN} = \text{Gnd}$ $V_{IN} = \text{Open}$
		54			
$t_{PLH}$ $t_{PHL}$	Propagation Delay Input to Output	22 25		ns	$C_L = 45 \text{ pF}, R_L = 120 \Omega$ Figs. 3-2, 3-4

\*DC limits apply over operating temperature range; AC limits apply at  $T_A = +25^\circ \text{C}$  and  $V_{CC} = +5.0 \text{ V}$ . \*\*OC — Open Collector

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