

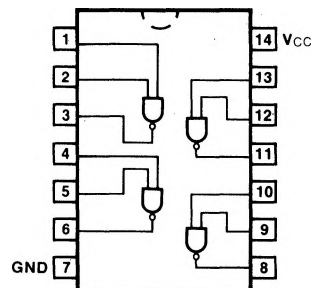
54/7438

54LS/74LS38

QUAD 2-INPUT NAND BUFFER

(With Open-Collector Output)

CONNECTION DIAGRAM PINOUT A



ORDERING CODE: See Section 9

PKGS	PIN OUT	COMMERCIAL GRADE	MILITARY GRADE	PKG TYPE
		$V_{CC} = +5.0 \text{ V} \pm 5\%$, $T_A = 0^\circ \text{ C to } +70^\circ \text{ C}$	$V_{CC} = +5.0 \text{ V} \pm 10\%$, $T_A = -55^\circ \text{ C to } +125^\circ \text{ C}$	
Plastic DIP (P)	A	7438PC, 74LS38PC		9A
Ceramic DIP (D)	A	7438DC, 74LS38DC	5438DM, 54LS38DM	6A
Flatpak (F)	A	7438FC, 74LS38FC	5438FM, 54LS38FM	3I

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

PINS	54/74 (U.L.) HIGH/LOW	54/74LS (U.L.) HIGH/LOW
Inputs	1.0/1.0	0.5/0.25
Outputs	OC**/30	OC**/15 (7.5)

DC AND AC CHARACTERISTICS: See Section 3*

SYMBOL	PARAMETER	54/74		54/74LS		UNITS	CONDITIONS	
		Min	Max	Min	Max			
V _{OL}	Output LOW Voltage	0.4				V	V _{IN} = 2.0 V, V _{CC} = Min, I _{OL} = 48 mA	
I _{OH}	Output HIGH Current			250		μA	V _{OH} = 5.5 V, V _{CC} = Min, V _{IN} = V _{IL}	
I _{CCH}	Power Supply Current	8.5		2.0		mA	V _{IN} = Gnd	V _{CC} = Max
I _{CCL}		54		12			V _{IN} = Open	
t _{PLH} t _{PHL}	Propagation Delay	22 18		22 22		ns	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