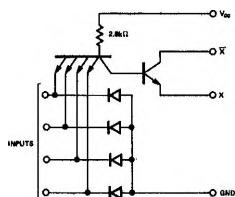


signetics DUAL 4-INPUT EXPANDER (FOR USE WITH N74H50, N74H53, N74H55 CIRCUITS) | N74H60

N74H60-A,F

DIGITAL 54/74 TTL SERIES

SCHEMATIC (each expander)

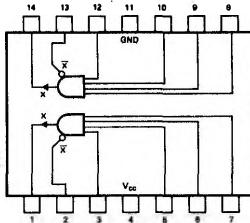


NOTES:

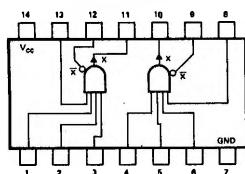
1. Connect to X input of N74H50, N74H53, or N74H55 circuit.
2. Connect to \bar{X} input of N74H50, N74H53, or N74H55 circuit.
3. Component values shown are nominal.

PIN CONFIGURATIONS

W PACKAGE



A,F PACKAGE



RECOMMENDED OPERATING CONDITIONS

Supply Voltage V_{CC}

Maximum number of expanders that may be
fanned-in to one N74H50, N74H53, or
N74H55 circuit

4.75V to 5.25V

4

ELECTRICAL CHARACTERISTICS (unless otherwise noted $T_A = 0^\circ\text{C}$ to 70°C)

PARAMETER	TEST CONDITIONS	MIN	TYP†	MAX	UNIT
$V_{in(1)}$	$V_{CC} = 4.75\text{V}$		2		V
$V_{in(0)}$	$V_{CC} = 4.75\text{V}$		0.8		V
V_{OS}	$V_{CC} = 4.75\text{V}, I_{on} = 6.3\text{mA}$ $V_{CC} = 5.25\text{V}, I_{on} = 7.4\text{mA}$	$V_{in} = 2\text{V}, T_A = 0^\circ\text{C}$ $V_{in} = 2\text{V}, T_A = 70^\circ\text{C}$	0.4	0.4	V
I_{off}	$V_{CC} = 4.75\text{V}, R = 575\Omega$	$V_{in} = 0.8\text{V}, T_A = 0^\circ\text{C}$		570	μA
I_{on}	$V_{CC} = 4.75\text{V}, T_A = 0^\circ\text{C}$	$V_{in} = 2\text{V}, V_1 = 1\text{V}$	-600		μA
$I_{in(0)}$	$V_{CC} = 5.25\text{V}, V_{in} = 0.4\text{V}$		-2		mA
$I_{in(1)}$	$V_{CC} = 5.25\text{V}, V_{in} = 2.4\text{V}$ $V_{CC} = 5.25\text{V}, V_{in} = 5.6\text{V}$		50 1		μA mA
$I_{CC(on)}$	$V_{CC} = 5.25\text{V}, V_1 = 0.85\text{V}$	$V_{in} = 4.6\text{V}, V_1 = 0.85\text{V}$	1.9	3.5	mA
$I_{CC(off)}$	$V_{CC} = 5.25\text{V}, V_1 = 0.85\text{V}$	$V_{in} = 0, V_1 = 0.85\text{V}$	3	4.5	mA

DIGITAL 54/74 TTL SERIES ■ N74H60**OUTPUT CAPACITANCE V_{CC} and GND terminals open, $T_A = 25^\circ C$**

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Cx Effective capacitance of output transistor Q ₁	f = 1 MHz		1.3		pF

† All typical values are at $V_{CC} = 5V$, $T_A = 25^\circ C$