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NTE74128 Integrated Circuit TTL – Quad 2–Input NOR 50Ω Line Driver

Description:

The NTE74128 is a line driver in a 14–Lead plastic DIP type package that contains four independent 2–input NOR line drivers. They perform the Boolean function $Y = \overline{A + B}$.

Absolute Maximum Ratings: (Note 1)

Supply Voltage, V_{CC}	7V
DC Input Voltage, V_{IN}	5.5V
Operating Temperature Range, T_A	0°C to +70°C
Storage Temperature Range, T_{stg}	–65°C to +150°C

Note 1. Unless otherwise specified, all voltages are referenced to GND.

Recommended Operating Conditions:

Parameter	Symbol	Min	Typ	Max	Unit
Supply Voltage	V_{CC}	4.75	5.0	5.25	V
High–Level Input Voltage	V_{IH}	2.0	–	–	V
Low–Level Input Voltage	V_{IL}	–	–	0.8	V
High–Level Output Current	I_{OH}	–	–	–42.4	mA
Low–Level Output Current	I_{OL}	–	–	48	mA
Operating Temperature Range	T_A	0	–	+70	°C

Electrical Characteristics: (Note 2, Note 3)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Clamp Voltage	V_{IK}	$V_{CC} = \text{MIN}, I_I = -12\text{mA}$	–	–	–1.5	V
High Level Output Voltage	V_{OH}	$V_{CC} = \text{MIN}, V_{IL} = 0.8\text{V}, I_{OH} = -2.4\text{mA}$	2.4	3.4	–	V
		$V_{CC} = \text{MIN}, V_{IL} = 0.4\text{V}, I_{OH} = -13.2\text{mA}$	2.4	–	–	V
		$V_{CC} = \text{MIN}, V_{IL} = 0.4\text{V}, I_{OH} = \text{MAX}$	2.0	–	–	V
Low Level Output Voltage	V_{OL}	$V_{CC} = \text{MIN}, V_{IH} = 2\text{V}, I_{OL} = 48\text{mA}$	–	0.26	0.4	V
Input Current	I_I	$V_{CC} = \text{MAX}, V_I = 5.5\text{V}$	–	–	1	mA
High Level Input Current	I_{IH}	$V_{CC} = \text{MAX}, V_I = 2.4\text{V}$	–	–	40	μA
Low Level Input Current	I_{IL}	$V_{CC} = \text{MAX}, V_I = 0.4\text{V}$	–	–	–1.6	mA
Short–Circuit Output Current	I_{OS}	$V_{CC} = \text{MAX}, \text{Note 4}$	–70	–	–180	mA
Supply Current	I_{CCH}	$V_{CC} = \text{MAX}$	–	12	21	mA
	I_{CCL}		–	33	57	mA

Note 2. For conditions shown as MIN or MAX, use the appropriate value specified under “Recommended Operation Conditions”.

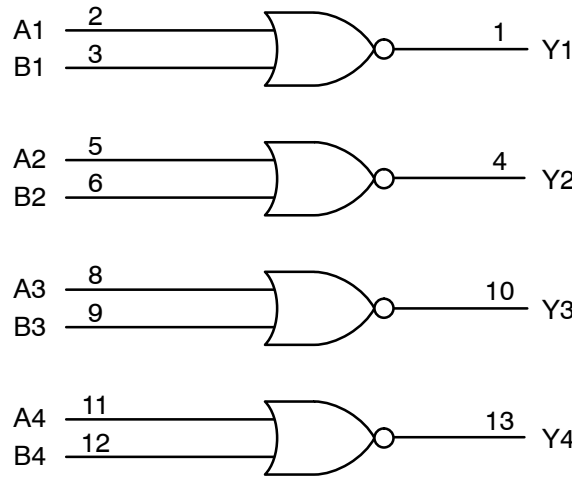
Note 3. All typical values are at $V_{CC} = 5\text{V}, T_A = +25^\circ\text{C}$.

Note 4. Not more than one output should be shorted at a time.

Switching Characteristics: ($V_{CC} = 5V$, $T_A = +25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Propagation Delay Time (From A or B Input to Y Output)	t_{PLH}	$R_L = 133\Omega$, $C_L = 50pF$	-	6	9	ns
	t_{PHL}		-	8	12	ns
Propagation Delay Time (From A or B Input to Y Output)	t_{PLH}	$R_L = 133\Omega$, $C_L = 150pF$	-	10	15	ns
	t_{PHL}		-	12	18	ns

Logic Diagram



Pin14 = V_{CC}
Pin7 = GND

Pin Connection Diagram

