



Dual 5-Input NAND Gates

General Description

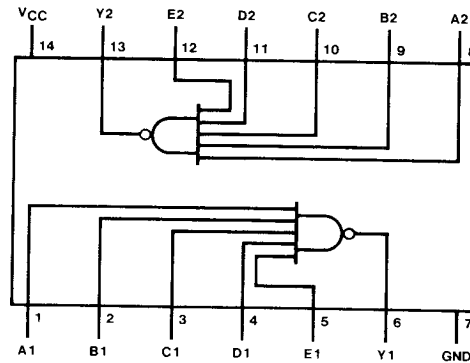
DM7092/DM8092

These devices provide two, 5-input NAND gates in the same package. Their primary advantage is that they fill a product void in the popular DM5400/DM7400 family. The electrical specifications are completely compatible with the series 54/74 devices.

Features

- Typical propagation delay 11 ns
- Typical power dissipation 35 mW

Connection Diagrams



7092 (J,W); 8092 (N)

**Electrical Characteristics** over recommended operating free-air temperature range (unless otherwise noted)

Parameter		Conditions	DM70/80			Units
			92			
			Min	Typ (1)	Max	
V _{IH}	High Level Input Voltage		2			V
V _{IL}	Low Level Input Voltage				0.8	V
V _I	Input Clamp Voltage	V _{CC} = Min, I _I = −12 mA, T _A = 25°C			−1.5	V
I _{OH}	High Level Output Current				−400	μA
V _{OH}	High Level Output Voltage	V _{CC} = Min, V _{IL} = 0.8 V, I _{OH} = Max	2.4			V
I _{OL}	Low Level Output Current				16	mA
V _{OL}	Low Level Output Voltage	V _{CC} = Min, V _{IH} = 2.0 V, I _{OL} = Max			0.4	V
I _I	Input Current at Maximum Input Voltage	V _{CC} = Max, V _I = 5.5 V			1	mA
I _{IH}	High Level Input Current	V _{CC} = Max, V _I = 2.4 V			40	μA
I _{IL}	Low Level Input Current	V _{CC} = Max, V _I = 0.4 V			−1.6	mA
I _{OS}	Short Circuit Output Current	V _{CC} = Max (2)	−18		−55	mA
I _{CCH}	Supply Current (Total with Outputs High)	V _{CC} = Max, V _I = 0			3.6	mA
I _{CCL}	Supply Current (Total with Outputs Low)	V _{CC} = Max, V _I = 5.0 V			10.2	mA

Note 1: All typical values are at V_{CC} = 5 V, T_A = 25°C.

Note 2: Not more than one output should be shorted at a time.

Switching Characteristics V_{CC} = 5 V, T_A = 25°C

Parameter		From	To	Conditions	DM70/80			Units
					92			
					Min	Typ	Max	
tPLH	Propagation Delay Time, Low-to-High Level Output	Input	Output	CL = 15 pF, RL = 400 Ω		13	25	ns
tPHL	Propagation Delay Time, High-to-Low Level Output	Input	Output			8	15	ns