

DM7092, DM8092

Dual 5-Input NAND Gates

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.

Rochester Electronics Manufactured Components

Rochester branded components are manufactured using either die/wafers purchased from the original suppliers or Rochester wafers recreated from the original IP. All recreations are done with the approval of the OCM.

Parts are tested using original factory test programs or Rochester developed test solutions to guarantee product meets or exceeds the OCM data sheet.

Quality Overview

- ISO-9001
- AS9120 certification
- Qualified Manufacturers List (QML) MIL-PRF-38535
 - Class Q Military
 - Class V Space Level
- Qualified Suppliers List of Distributors (QSLD)
 - Rochester is a critical supplier to DLA and meets all industry and DLA standards.

Rochester Electronics, LLC is committed to supplying products that satisfy customer expectations for quality and are equal to those originally supplied by industry manufacturers.

The original manufacturer's datasheet accompanying this document reflects the performance and specifications of the Rochester manufactured version of this device. Rochester Electronics guarantees the performance of its semiconductor products to the original OEM specifications. 'Typical' values are for reference purposes only. Certain minimum or maximum ratings may be based on product characterization, design, simulation, or sample testing.



Dual 5-Input NAND Gates

General Description

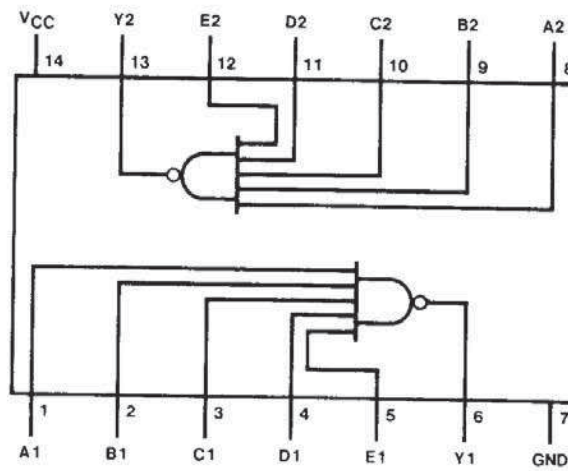
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Features

- 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	
t _{PLH}	Propagation Delay Time, Low-to-High Level Output	Input	Output	C _L = 15 pF, R _L = 400 Ω		13	25	ns
t _{PHL}	Propagation Delay Time, High-to-Low Level Output	Input	Output			8	15	ns