
PART NUMBER**MC2101F**

**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 re-creations are done with the approval of the Original Component Manufacturer. (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.

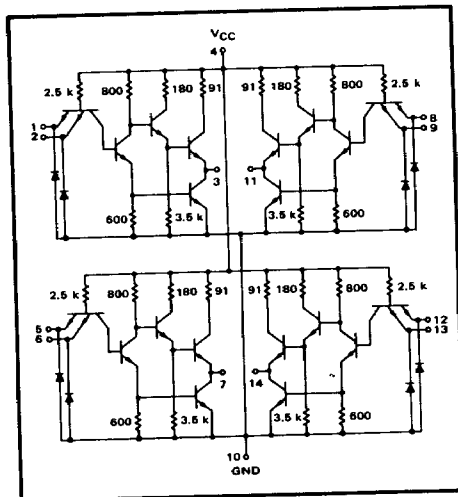
Rochester Electronics, LLC is committed to supplying products that satisfy customer expectations for quality and are equal to those originally supplied by industry manufacturers.

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 OCM specifications. 'Typical' values are for reference purposes only. Certain minimum or maximum ratings may be based on product characterization, design, simulation, or sample testing.

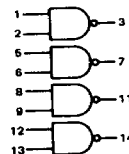
QUAD 2-INPUT "NAND" GATE

MTTL II MC2100/2000 series

MC2101 • MC2151
MC2001 • MC2051



This device consists of four 2-input NAND gates. The four gates in a single package represent increased functional flexibility. For example, a dual set-reset flip-flop may be obtained if each pair of gates is externally cross-coupled.



Positive Logic:
 $3 = 1 \cdot 2$

Negative Logic:
 $3 = 1 \cdot 2$

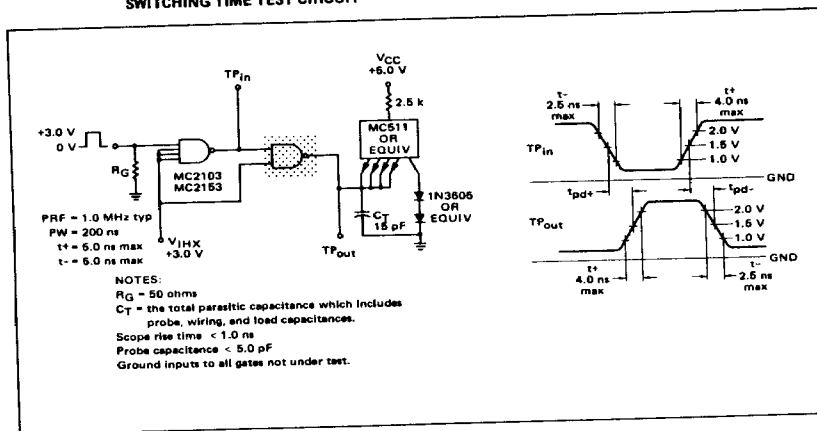
Drive Current

Total Power Dissipation = 88 mW typ/Pkg
Propagation Delay Time = 6.0 ns typ

TYPE NO.	INPUT LOADING FACTOR (I _P)	OUTPUT DRIVE (I _{OL})	TEMPERATURE RANGE
MC2101 MC2151	1 -2.0 mA	11 6 MC2100 series Gates MC2100 series Gates 22 mA 12 mA	-55°C to +125°C
MC2001 MC2051	1 -2.5 mA	9 5 MC2000 series Gates MC2000 series Gates 22.5 mA 12.5 mA	0°C to +75°C

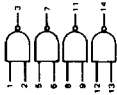
SWITCHING TIME TEST CIRCUIT

VOLTAGE WAVEFORMS AND DEFINITIONS



ELECTRICAL CHARACTERISTICS

Test procedures are shown for only one gate. The other gates are tested in a similar manner. Further, test procedures are shown for only one input of the gate being tested. The other input is tested in the same manner.



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Pin-out and Package Information

Table 3-4 DSP56001A Identification by Signal Name (Continued)

Signal Name	132 pin "FC" PQFP or "FE" CQFP Pin No.	88 pin "RC" PGA Pin No.	Signal Name	132 pin "FC" PQFP or "FE" CQFP Pin No.	88 pin "RC" PGA Pin No.
WT	45	L13	nc	103	
X/Y	48	N13	nc	107	
XTAL	126	A6	nc	110	
nc	3		nc	116	
nc	4		nc	117	
nc	7		nc	122	
nc	17		nc	125	
nc	18		nc	132	
nc	21				

Power and ground pins have special considerations for noise immunity. See the section **Design Considerations**.

Table 3-5 DSP56001A Power Supply Pins

132 pin “FC” PQFP or “FE” CQFP Pin No.	88 pin “RC” PGA Pin No.	Power Supply	Circuit Supplied
63	L8	VCCN	Address Bus Buffers
64			
55	L6	GNDN	
56	L9		
73			
74			