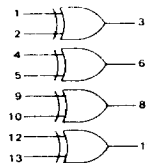
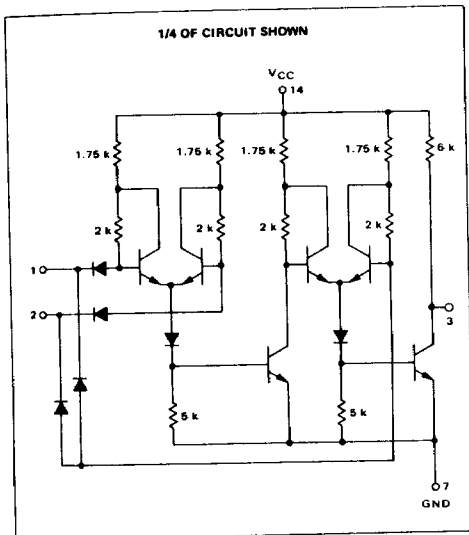


QUAD 2-INPUT
EXCLUSIVE "OR" GATE

MDTL MC930/830 series

MC1912F • MC1812F,P

This device consists of four 2-input gates, each performing the logical EXCLUSIVE OR function. Added logic flexibility provided by this device helps to optimize system designs.



Positive Logic: $3 = 1 \oplus 2 = 1 \oplus 2$

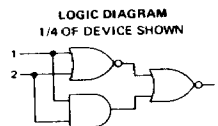
Input Loading Factor = 2

Output Loading Factor = 8

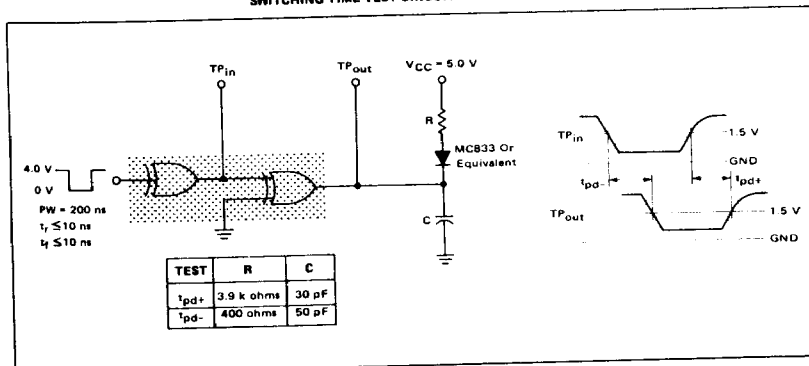
Total Power Dissipation:

	MC1912/MC1812
Both Inputs High	115 mW
Both Inputs Low	130 mW
One Low One High	95 mW

Propagation Delay Time = 40 ns typ

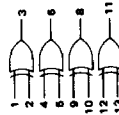


SWITCHING TIME TEST CIRCUIT AND WAVEFORMS



ELECTRICAL CHARACTERISTICS

Test procedures are shown for only one gate. The other gates are tested in the same manner.



Characteristic		TEST VOLTAGE/CURRENT VALUES											
		mA						Volts					
		I_{OL}	I_{OH}	V_{OL}	V_{OH}	V_{IN}	V_{PO}	V_F	V_{CEX}	V_{CC}	V_{COL}	V_{CCH}	V_{max}
Output Voltage	V_{OL}	3	3	0.45	2.60	1.10	2.10	0	4.00	4.50	4.50	5.50	8.00
	V_{OH}	3	3	2.60	2.60	2.60	2.60	0	4.00	4.50	4.50	5.50	8.00
	I_{SC}	3	3	-1.34	-1.30	-1.30	-1.30	-	4.00	4.50	4.50	5.50	8.00
Reverse Current	I_R	1	1	4.0	4.0	10.0	10.0	10	20	20	20	20	20
Output Leakage Current	I_{CEX}	3	3	-	-	-	-	-	-	-	-	-	-
Forward Current	I_F	1	1	-3.20	-3.20	-3.00	-3.00	-	-	-	-	-	-
Power Drain Current (Total Device)	I_{PDN}	14	14	-	-	-	-	-	-	-	-	-	-
Switching Times	t_{pL}	1.3	1.3	-	-	-	-	-	-	-	-	-	-
	t_{pH}	1.3	1.3	-	-	-	-	-	-	-	-	-	-

TEST CURRENT / VOLTAGE APPLIED TO PINS LISTED BELOW:

TEST CURRENT / VOLTAGE APPLIED TO PINS LISTED BELOW:													
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PRODUCT DOCUMENTATION

The three documents listed in the following table are required for a complete description of the DSP56301 and are necessary to design properly with the part. Documentation is available from one of the following locations (see back cover for detailed information):

- A local Motorola distributor
- A Motorola semiconductor sales office
- A Motorola Literature Distribution Center
- The World Wide Web (WWW)

See the **Additional Support** section of the *DSP56300 Family Manual* for detailed information on the multiple support options available to you.

Table 1 DSP56301 Documentation

Name	Description	Order Number
DSP56300 Family Manual	Detailed description of the DSP56300 family processor core and instruction set	DSP56300FM/AD
DSP56301 User's Manual	Detailed functional description of the DSP56301 memory configuration, operation, and register programming	DSP56301UM/AD
DSP56301 Technical Data	DSP56301 features list and physical, electrical, timing, and package specifications	DSP56301/D

