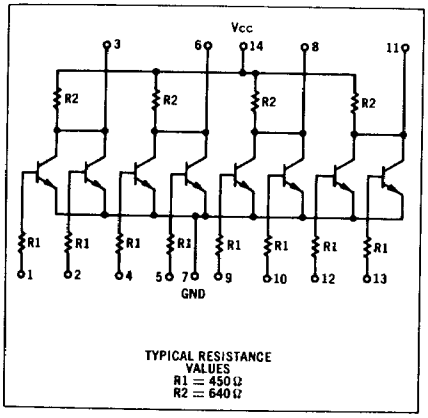
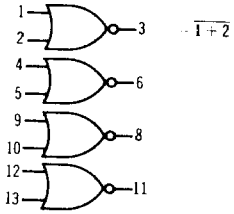
MC924 • MC824

Available in TO-86 Flat Package, Add "F" Suffix.

This gate element consists of four 2-input positive logic NOR gate circuits in a single package. The gate circuits may be used independently, or connected together to form flip-flops or non-inverting gates.



TYPICAL RESISTANCE VALUES
R1 = 450 Ω
R2 = 640 Ω



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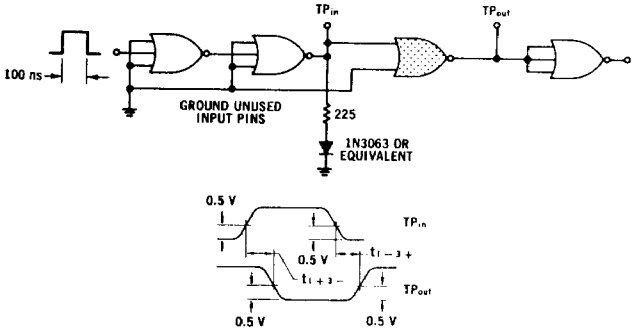
SWITCHING TIMES TEST CIRCUIT AND WAVEFORMS



ELECTRICAL CHARACTERISTICS

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

@Test Temperature		TEST VOLTAGE VALUES (Volts) V_{in}	V_{on}	V_{BOT}	V_{off}	V_{CC}
MC924	−55°C	1.014	1.014	1.50	0.710	3.00
	+25°C	0.844	0.815	1.50	0.565	3.00
	+125°C	0.674	0.674	1.50	0.320	3.00
MC824	0°C	0.909	0.909	1.50	0.574	3.00
	+25°C	0.844	0.844	1.50	0.554	3.00
	+100°C	0.710	0.710	1.50	0.370	3.00

Characteristic	Symbol	Pin Under Test	MC924 Test Limits −55°C Min	−55°C Max	+25°C Min	+25°C Max	+125°C Min	+125°C Max	Unit	MC824 Test Limits 0°C Min	0°C Max	+25°C Min	+25°C Max	+100°C Min	+100°C Max	Unit	TEST VOLTAGE APPLIED TO PINS LISTED BELOW: V_{in}	V_{on}	V_{BOT}	V_{off}	V_{CC}	Gnd
Input Current	I_{in}	1	-	495	-	435	-	470	uAdc	-	504	-	450	-	450	uAdc	1	-	2	-	14	7
		2	-	495	-	435	-	470	uAdc	-	504	-	450	-	450	uAdc	2	-	1	-	14	7
Output Current	I_{A5}	3	2.47	-	2.54	-	2.35	-	mAdc	2.52	-	2.38	-	2.25	-	mAdc	3	-	-	1,2	14	7
Output Leakage Current	I_{CEX}	3	-	100	-	218	-	235	uAdc	-	100	-	225	-	225	uAdc	-	3	-	1,2	-	7
Output Voltage	V_{out}	3	-	710	-	300	-	320	mVdc	-	574	-	400	-	370	mVdc	-	1	-	-	14	2,7
		3	-	710	-	300	-	320	mVdc	-	574	-	400	-	370	mVdc	-	2	-	-	14	1,7
Saturation Voltage	$V_{CE(sat)}$	3	-	200	-	210	-	280	mVdc	-	290	-	260	-	340	mVdc	-	-	1	-	14	2,7
		3	-	200	-	210	-	280	mVdc	-	290	-	260	-	340	mVdc	-	-	2	-	14	1,7
Switching Time	t	1+3-	-	-	-	20	-	-	ns	-	-	-	20	-	-	ns	Pulse In 1	Pulse Out 3	-	-	14	2,7
		1-3+	-	-	-	28	-	-	ns	-	-	-	28	-	-	ns	1	3	-	-	14	2,7

Ground inputs of gates not under test. Other pins not listed are left open.

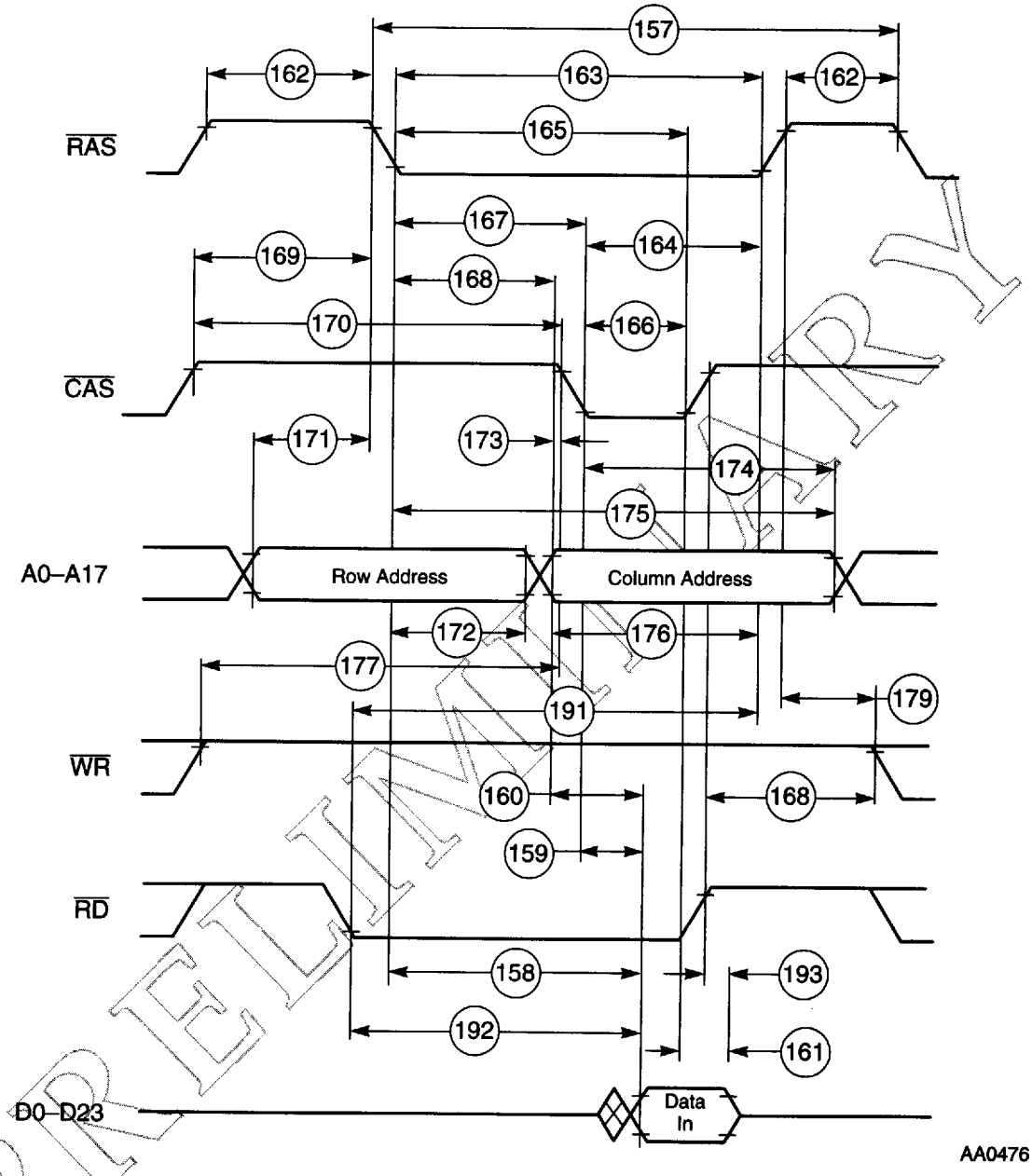


Figure 2-18 DRAM Out-of-Page Read Access