

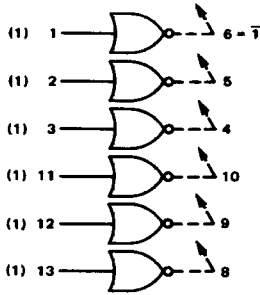
HEX EXPANDERS

MRTL MC900/800 series

MC9919 • MC9819

Available in TO-86 flat package, add "F" suffix.

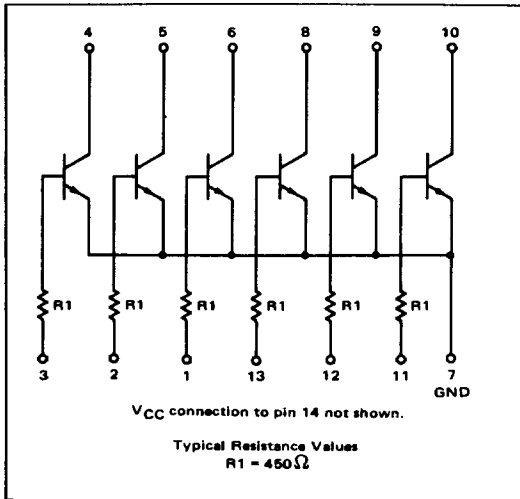
Six individual expanders are contained in a single package providing increased input capability for MRTL gates.



$t_{pd} = 12 \text{ ns}$
 $P_D = 13 \text{ mW typ (Input High)}$
 Negligible (Inputs Low)

NUMBER IN PARENTHESIS INDICATES
 MRTL LOADING FACTOR.

When an expander is added to a gate, subtract 0.4 load from the output of the gate for each expander circuit added. The input loading factor of the expanded gate is 1.3. Pin 14 of the expander must be connected to V_{CC} .



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MC9919, MC9819 (continued)

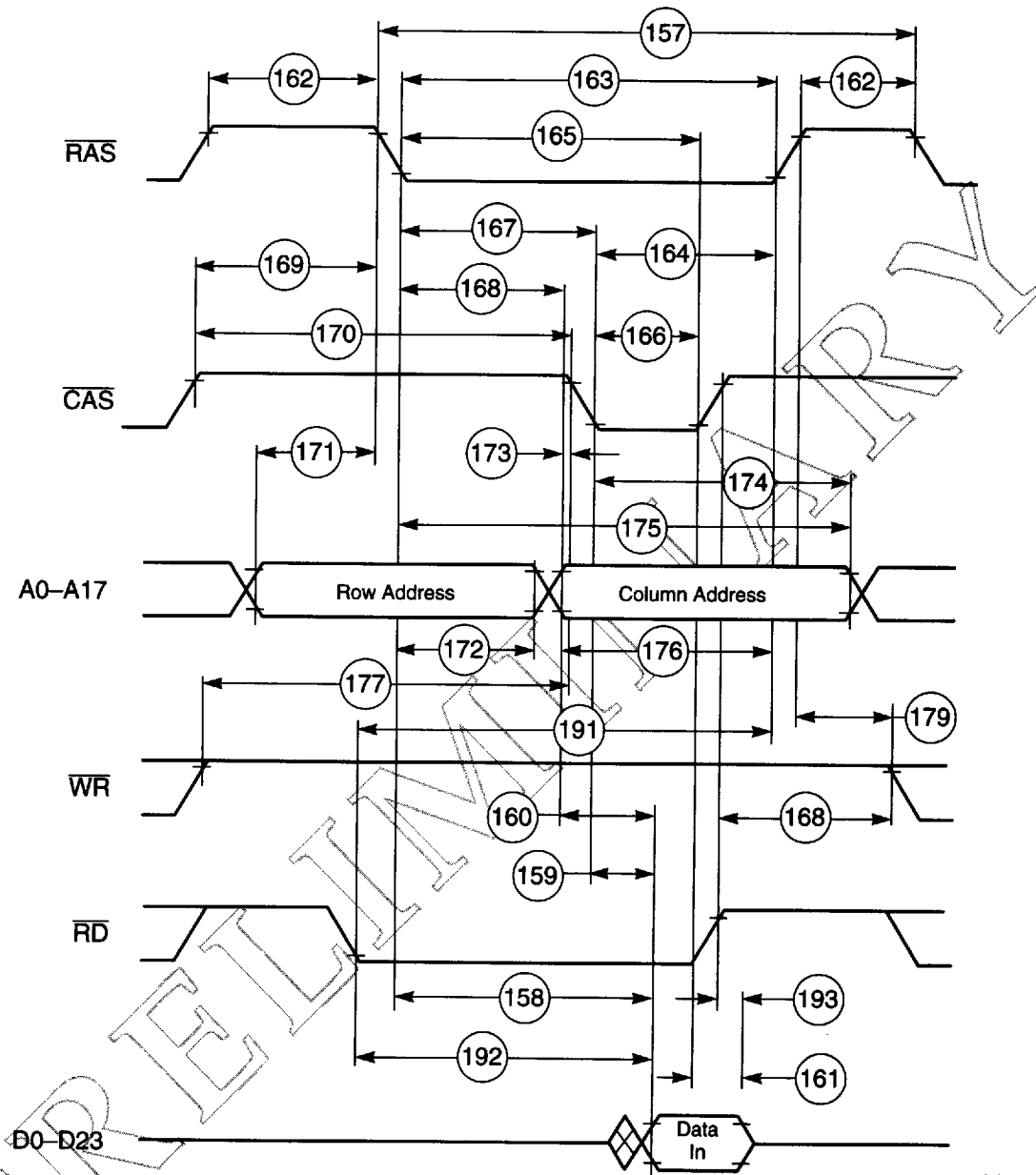
ELECTRICAL CHARACTERISTICS

Test procedures are shown for one expander only. The other expanders are tested in the same manner.

Characteristic	Symbol	Pin Under Test	TEST VOLTAGE VALUES																						
			MC9919 Test Limits						MC9819 Test Limits						APPLIED TO PINS LISTED BELOW:										
			-55°C		+25°C		+125°C		0°C		+25°C		+100°C		V _{in}		V _{on}		V _{boot}		V _{off}		V _{CC}		V _{A*}
Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		
Input Current	I _{in}	1	-	495	-	435	-	470	-	504	-	450	-	450	μAdc	1	-	-	-	-	-	14	6	7	7
Output Leakage Current	I _{CEX}	6	-	100	-	218	-	235	-	100	-	225	-	225	μAdc	6	-	-	-	-	-	14	-	7	7
Output Voltage	V _{out}	6	-	710	-	500	-	320	mVdc	574	-	400	-	370	mVdc	-	1	-	-	-	14	6	7	7	
Saturation Voltage	V _{CE(sat)}	6	-	200	-	210	-	280	mVdc	290	-	280	-	340	mVdc	-	1	-	-	-	14	6	7	7	

Ground inputs of expanders not used in test. Other pins not listed are left open.

* Resistor value to V_{CC}.



AA0476

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

Preliminary Data