

8K x 8 BIT PROGRAMMABLE EEPROM—8020

DEVICE OPERATION

READ The 8020 is accessed like a static RAM. When \overline{CE} and \overline{OE} are low and \overline{WE} is high, the data stored at the memory location determined by the address pins is asserted on the outputs. The outputs are put in a high impedance state whenever \overline{CE} or \overline{OE} is high. This dual line control gives designers increased flexibility in preventing bus contention.

BYTE WRITE Writing data into the 8020 is similar to writing into a static RAM. A low pulse on the \overline{WE} or \overline{CE} input with \overline{OE} high and \overline{CE} or \overline{WE} low (respectively) initiates a byte write. The address location is latched on the falling edge of \overline{WE} (or \overline{CE}); the new data is latched on the rising edge of \overline{WE} (or \overline{CE}); the new data is latched on the rising edge. Internally the device performs a self-clear before write. Once a byte write has been started, it will automatically time itself to completion.

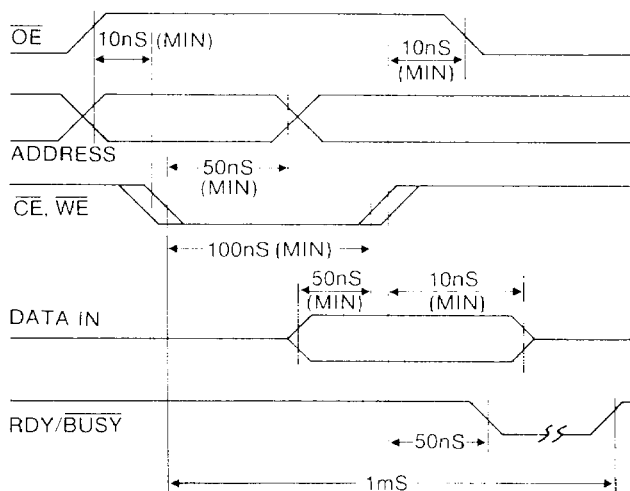
DATA POLLING The 8020 also utilizes \overline{DATA} POLLING to signal the completion of a write cycle. During a write cycle, an attempted read of the data being written results in the compliment of that data for I/O7 (the other outputs are indeterminate). When the write cycle is finished, true data appears on all outputs.

WRITE PROTECTION Inadvertent writes to the device are protected against in the following ways: (a) V_{CC} sense—if V_{CC} is below 3.8V, the write function is inhibited. (b) V_{CC} power on delay—once V_{CC} has reached 3.8V, the device will automatically time out 5mS before allowing a byte write. (c) $\overline{Write Inhibit}$ —holding any one of \overline{OE} low, \overline{CE} high or \overline{WE} high inhibits byte write cycles.

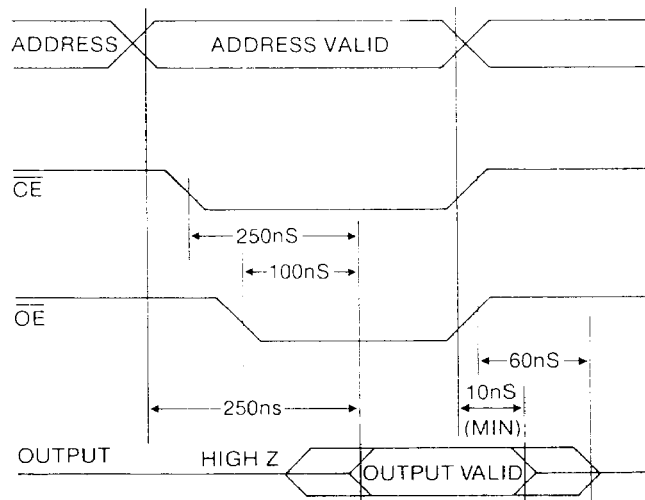
TIMING DIAGRAMS

All times are maximums unless otherwise specified.

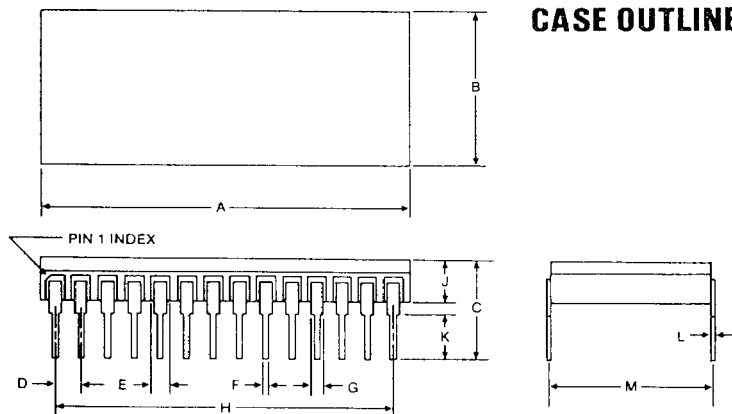
WRITE CYCLE



READ CYCLE



CASE OUTLINE



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	1.250	1.550	31.8	39.4
B	0.060	0.062	1.5	1.6
C	0.375 REF.		9.5 REF.	
D	0.098	0.102	2.5	2.6
E	0.065	0.075	1.7	1.9
F	0.016	0.020	0.4	0.5
G	0.048	0.052	1.2	1.3
H	1.294	1.306	32.9	33.2
J	0.138	0.172	3.5	4.4
K	0.160	0.180	4.1	4.6
L	0.008	0.012	0.2	0.3
M	0.600 REF.		15.2 REF.	