

RECOMMENDED OPERATING RANGE ¹					
Symbol	Characteristic	Min.	Typ.	Max.	Unit
V _{CC}	Supply Voltage	4.5	5.0	5.5	V
V _{IH}	Input HIGH Voltage	2.2		V _{CC} +0.3	V
V _{IL}	Input LOW Voltage	-0.5 ²		0.8	V
T _A	Temperature Range	0		70	°C

ABSOLUTE MAXIMUM RATINGS ³			
Symbol	Parameter	Value	Unit
T _{STC}	Storage Temperature	-65 to + 150	°C
T _{BIAS}	Temperature Under Bias	-10 to + 85	°C
V _{CC}	Supply Voltage ¹	-0.5 to + 7.0	V
V _{I/O}	Input/Output Voltage ¹	-0.5 to V _{CC} + 0.5	V

TRUTH TABLE				
Mode	\overline{CE}	WE	Output	Supply Current
Not Selected	H	X	HIGH-Z	Standby
Read	L	H	D _{OUT}	Active
Write	L	L	D _{IN}	Active

L = LOW H = HIGH X = Don't Care

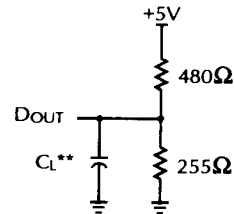
CAPACITANCE ⁴ : T _A = 25°C, F = 1.0MHz				
Symbol	Parameter	Max.	Unit	Condition
CCE	Chip Enable	50	pF	V _{IN} = 0V
CADR	Address Input	50		
CWE	Write Enable	50		
CDI	Data Input	35		
CDO	Data Output	35		

AC TEST CONDITIONS	
Input Pulse Levels	0V to 3.0V
Input Pulse Rise and Fall Times	5ns*
Input Timing Reference Levels	1.5V

* Transition between 0.8V and 2.2V.

Figure 1. Output Load

** Including Probe and Jig Capacitance.



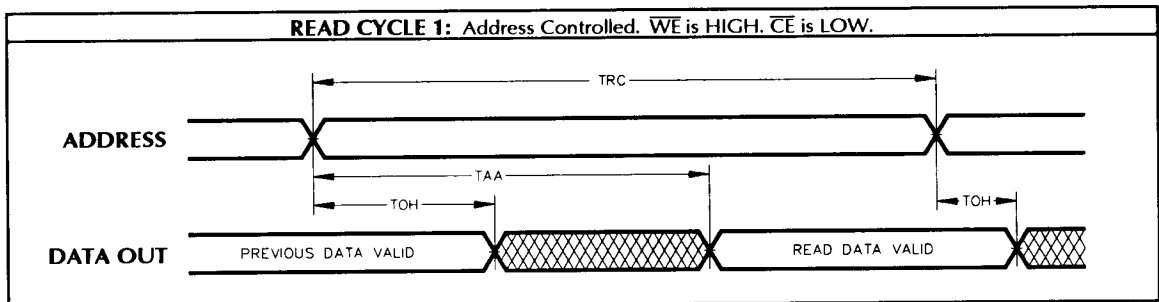
Output Load		
Load	C _L	Parameters Measured
1	30 pF	except t _{CLZ} , t _{CHZ} , t _{WHZ} , and t _{WLZ}
2	5 pF	t _{CLZ} , t _{CHZ} , t _{WHZ} , and t _{WLZ}

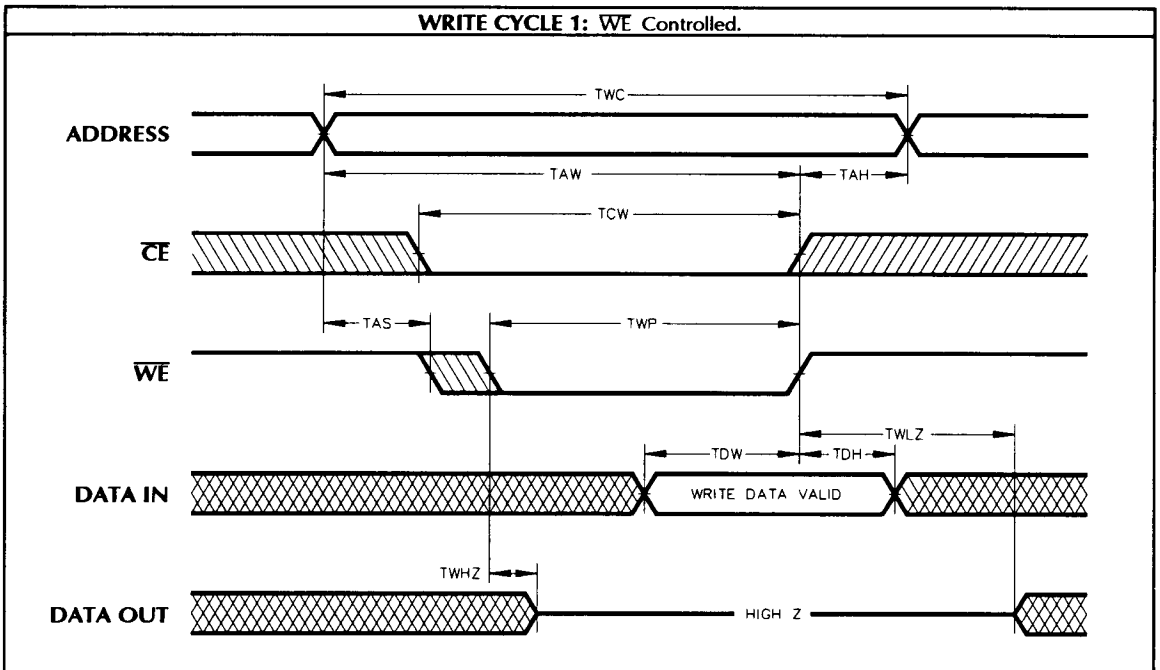
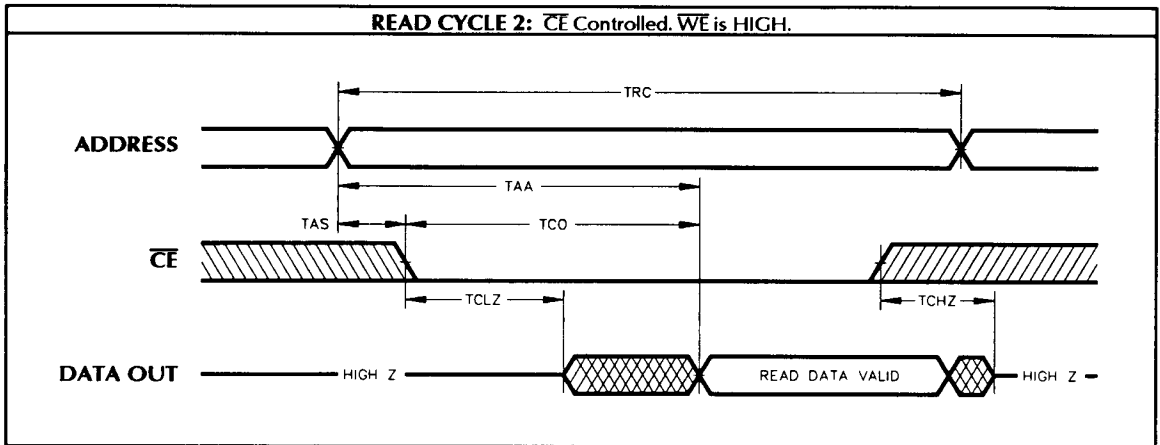
DC OPERATING CHARACTERISTICS: Over operating ranges					
Symbol	Characteristics	Test Conditions	Commercial		Unit
			Min.	Max.	
I _{IN}	Input Leakage Current	V _{IN} = 0V to V _{CC}	-20	20	μA
I _{OUT}	Output Leakage Current	V _{I/O} = 0V to V _{CC} , CE or OE = V _{IH} , or WE = V _{IL}	-10	10	μA
I _{CC1}	Active Supply Current	CE = V _{IL} , V _{IN} = V _{IH} or V _{IL} , I _{OUT} = 0mA		400	mA
I _{CC2}	Operating Supply Current	Cycle = min., Duty = 100% I _{OUT} = 0mA		560	mA
I _{SB1}	Full Standby Supply Current (CMOS)	V _{IN} ≤ 0.2V or V _{IN} ≥ V _{CC} - 0.2V CE ≥ V _{CC} - 0.2V		40	mA
I _{SB2}	Standby Supply (TTL)	CE = V _{IH} , V _{IN} = V _{IH} or V _{IL}		120	mA
V _{OL}	Output Low Voltage	I _{OUT} = 8.0mA		0.4	V
V _{OH}	Output High Voltage	I _{OUT} = -4.0mA	2.4		V

AC OPERATING CONDITIONS AND CHARACTERISTICS - READ CYCLE: Over operating ranges											
No.	Symbol	Parameter	-25		-35		-45		-55		Unit
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
1	t _{RC}	Read Cycle Time	25		35		45		55		ns
2	t _{AA}	Address Access Time (See Figure 1)		25		35		45		55	ns
3	t _{CO}	Chip Enable to Output Valid (See Figure 1)		25		35		45		55	ns
4	t _{OH}	Output Hold from Address Change	5		10		10		10		ns
5	t _{CLZ}	Chip Enable to Output in LOW-Z ^{4, 5}	10		10		10		10		ns
6	t _{CHZ}	Chip Enable to Output in HIGH-Z ^{4, 5}	0	15	0	20	0	25	0	30	ns
7	t _{AS}	Address Set-up Time***	0		0		0		0		ns

AC OPERATING CONDITIONS AND CHARACTERISTICS - WRITE CYCLE: Over operating ranges											
No.	Symbol	Parameter	-25		-35		-45		-55		Unit
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
8	t _{WC}	Write Cycle Time	25		35		45		55		ns
9	t _{AW}	Address Valid to End of Write	20		30		40		50		ns
10	t _{CW}	Chip Enable to End of Write	20		30		40		50		ns
11	t _{DW}	Data Valid to End of Write	20		20		30		30		ns
12	t _{DH}	Data Hold Time	0		0		0		0		ns
13	t _{WP}	Write Pulse Width	20		30		40		40		ns
14	t _{AH}	Address Hold Time	0		0		0		0		ns
15	t _{WHZ}	Write Enable to Output in HIGH-Z ^{4, 5}	0	15	0	20	0	25	0	25	ns
16	t _{WLZ}	Write Enable to Output in LOW-Z ^{4, 5}	5		5		5		5		ns

*** Valid for both Read and Write Cycles.



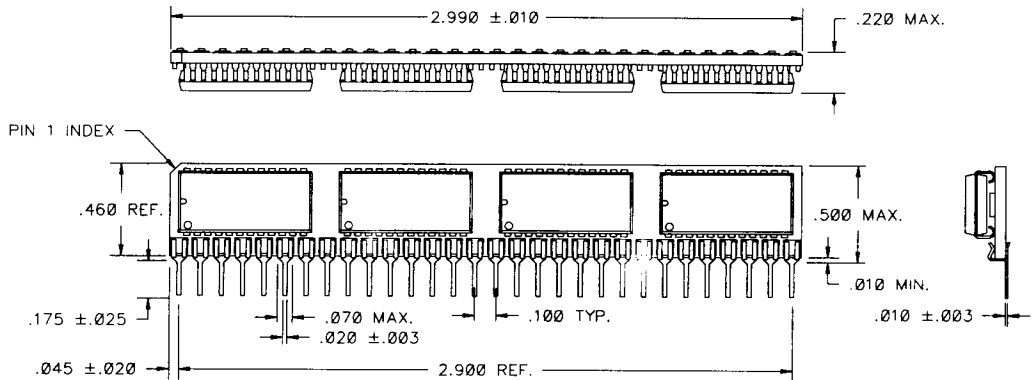


ORDERING INFORMATION

DP S256P4 - XX X
PREFIX DEVICE TYPE SPEED GRADE

C	COMMERCIAL	0°C to +70°C
25	25ns	
35	35ns	
45	45ns	
55	55ns	
256K X 4 CMOS SRAM 30 PIN SIP MODULE		

MECHANICAL DIAGRAM



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