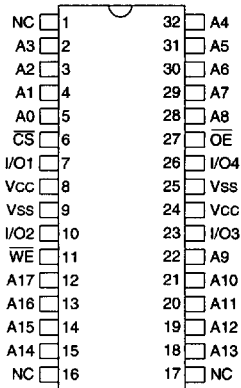




256Kx4 SRAM

ADVANCED*

PIN CONFIGURATION TOP VIEW



PIN DESCRIPTION

A0-17	Address Inputs
I/O0-4	Data Input/Output
CS	Chip Select
OE	Output Enable
WE	Write Enable
Vcc	Power Supply
Vss	Ground
NC	Not Connected

PLASTIC PLUS™ FEATURES

- Access Times 15, 17, 20ns
- Low Voltage Operation:
 - 3.3V ±10% Power Supply
- Standard Commercial Off-The-Shelf (COTS) Memory Devices for Extended Temperature Range
- JEDEC Standard 32 Lead Plastic SOJ Package, 0.4"
- Electrical and Speed Characteristics for:
 - Military Temperature (-55°C to +125°C)
 - Industrial Temperature (-40°C to +85°C)
- Fully Static Operation
 - No clock or refresh required.
- Three State Outputs
- Burn-in and Temperature Cycling Available
- Organized as 256K x 4
- Center Power/Ground Pins (Revolutionary)
- Low Power CMOS

* This data sheet describes a product that may or may not be under development and is subject to change or cancellation without notice.

PLASTIC PLUS SRAM



ABSOLUTE MAXIMUM RATINGS

Table with 5 columns: Parameter, Symbol, Min, Max, Unit. Rows include Operating Temperature (Mil.), Operating Temperature (Ind.), Storage Temperature, Signal Voltage Relative to GND, and Supply Voltage.

TRUTH TABLE

Table with 6 columns: CS, OE, WE, Mode, Data I/O, Power. Rows show combinations of control signals and their effects on data I/O and power.

RECOMMENDED OPERATING CONDITIONS

Table with 5 columns: Parameter, Symbol, Min, Max, Unit. Rows include Supply Voltage, Input High Voltage, Input Low Voltage, Operating Temperature (Mil.), and Operating Temperature (Ind.).

CAPACITANCE

(TA = +25°C)

Table with 5 columns: Parameter, Symbol, Condition, Max, Unit. Rows include Input capacitance and Output capacitance.

This parameter is guaranteed by design but not tested.

DC CHARACTERISTICS

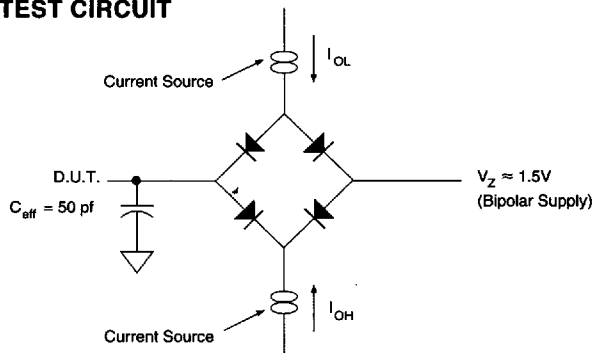
(VCC = 3.3V, VSS = 0V, TA = -55°C to +125°C)

Table with 5 columns: Parameter, Symbol, Conditions, Min, Max, Units. Rows include Input Leakage Current, Output Leakage Current, Operating Supply Current, Standby Current, Output Low Voltage, and Output High Voltage.

NOTE: DC test conditions: VIL = 0.3V, VIH = VCC - 0.3V

SRAM

AC TEST CIRCUIT



AC TEST CONDITIONS

Table with 3 columns: Parameter, Typ, Unit. Rows include Input Pulse Levels, Input Rise and Fall, Input and Output Reference Level, and Output Timing Reference Level.

NOTES:

Vz is programmable from -2V to +7V. IOL & IOH programmable from 0 to 16mA. Tester Impedance Zo = 75 Ω. Vz is typically the midpoint of VOH and VOL. IOL & IOH are adjusted to simulate a typical resistive load circuit. ATE tester includes jig capacitance.



AC CHARACTERISTICS
(VCC = 3.3V, VSS = 0V, TA = -55°C to +125°C)

Table with 9 columns: Parameter, Symbol, -15 Min, -15 Max, -17 Min, -17 Max, -20 Min, -20 Max, Units. Rows include Read Cycle Time, Address Access Time, Output Hold from Address Change, Chip Select Access Time, Output Enable to Output Valid, Chip Select to Output in Low Z, Output Enable to Output in Low Z, Chip Disable to Output in High Z, Output Disable to Output in High Z.

1. This parameter is guaranteed by design but not tested.

AC CHARACTERISTICS
(VCC = 3.3V, TA = -55°C to +125°C)

Table with 9 columns: Parameter, Symbol, -15 Min, -15 Max, -17 Min, -17 Max, -20 Min, -20 Max, Units. Rows include Write Cycle Time, Chip Select to End of Write, Address Valid to End of Write, Data Valid to End of Write, Write Pulse Width, Address Setup Time, Address Hold Time, Output Active from End of Write, Write Enable to Output in High Z, Data Hold Time.

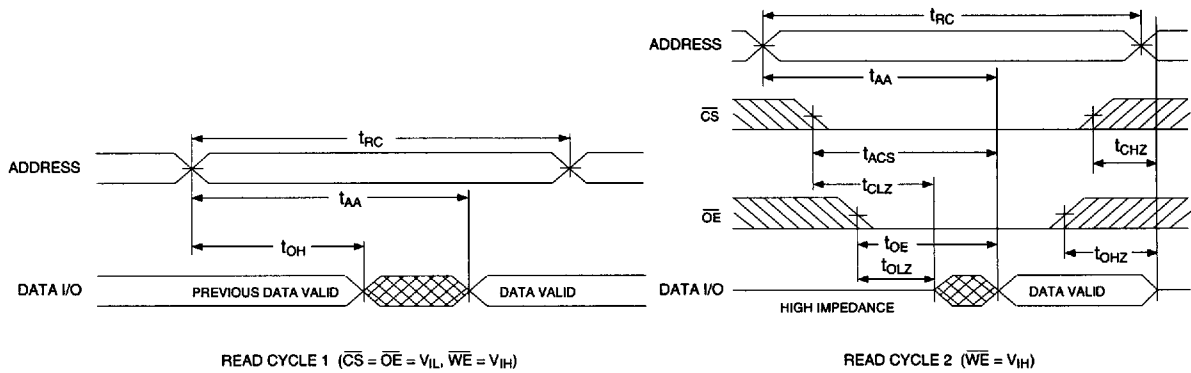
1. This parameter is guaranteed by design but not tested.

SRAM

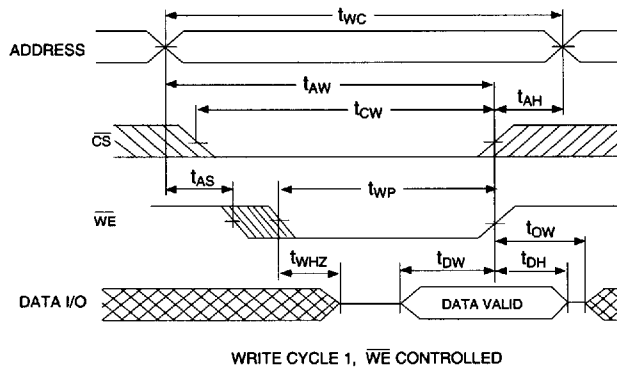


SRAM

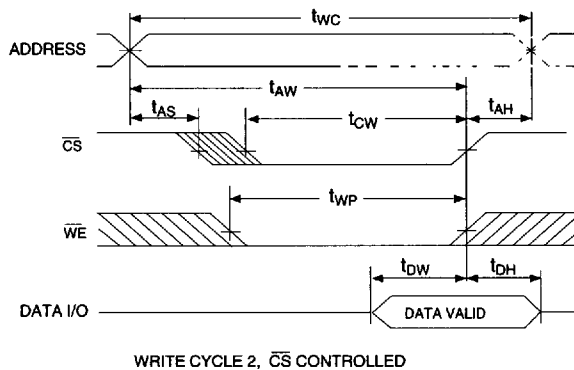
TIMING WAVEFORM - READ CYCLE



WRITE CYCLE - \overline{WE} CONTROLLED

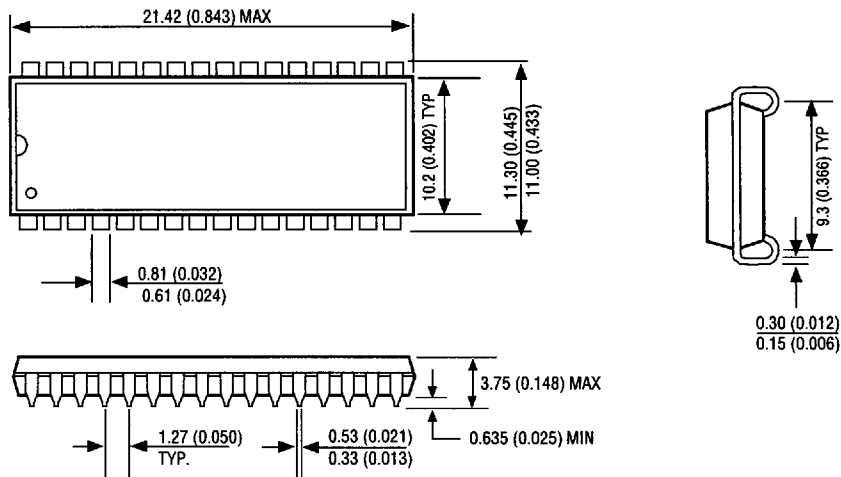


WRITE CYCLE - \overline{CS} CONTROLLED





PACKAGE DIMENSION: 32 LEAD, REVOLUTIONARY SOJ



MAX / MIN ; millimeter (inch)

ORDERING INFORMATION

W P S 256K 4 V X - XXX R J X

DEVICE GRADE:

- M = Military Temperature -55°C to +125°C
- I = Industrial Temperature -40°C to +85°C

PACKAGE:

- RJ = 32 Lead Revolutionary SOJ

ACCESS TIME (ns)

IMPROVEMENT MARKS

- B = Burn-in
- T = Temperature Cycling

V = 3.3 ± 10% Power Supply

ORGANIZATION, 256K x 4

SRAM

PLASTIC PLUS™

WHITE MICROELECTRONICS

SRAM