

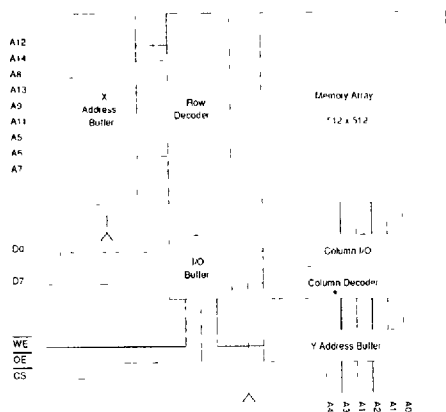


32,768 word x 8 - bit High Speed CMOS Static RAM

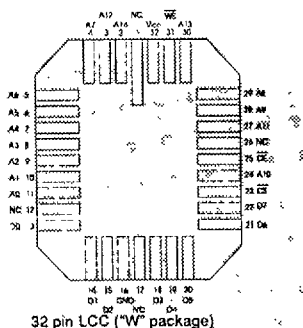
Features

- Full Military Temperature Range
- Fast Access Times - 70/85/100nS
- Low Power Standby - 10 μ W(typ), L version
- Low Power Operation - 40mW(typ)
- Completely Static Operation
- Equal Access and Cycle Times
- Battery Back-up Operation (L and U version)
- BS9000 Approval Pending

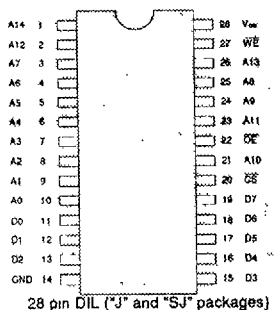
Block Diagram



Pin Assignments



32 pin LCC ("W" package)



28 pin DIL ("J" and "SJ" packages)

Pin Functions

- | | |
|--------|-------------------|
| AO-A14 | Address inputs |
| D0-7 | Data Input/Output |
| CS | Chip Select |
| OE | Output Enable |
| WE | Write Enable |
| Voc | Power(+5V) |

Ordering Information

μ T6
CMOS Static RAM

832
32K X 8

L
Blank - normal power
L - battery back-up, low power
U - battery back-up, ultra low power

J - Package Style

85
Speed - 70ns
- 85ns
- 100ns

J - 28 pin 0.600 body ceramic DIL
SJ - 28 pin 0.300 body ceramic DIL
W - 32 pin ceramic LCC

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Recommended DC Operating Conditions

($T_a = -55$ to $+125^\circ\text{C}$)

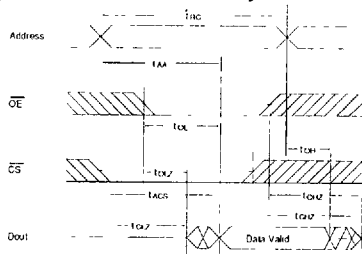
Item	Symbol	min	typ	max	Unit
Supply Voltage	V _{CC}	4.5	5.0	5.5	V
	GND	0	0	0	V
Input Voltage	V _{IH}	2.2	-	V _{CC} + 0.3	V
	V _{IL}	-0.3	-	0.8	V

Read Cycle

(All units in ns)

Item	Symbol	-70		-88		-100	
		min	max	min	max	min	max
Read Cycle Time	t _{RC}	70	-	85	-	100	-
Address Access Time	t _{AA}	-	70	-	85	-	100
Chip Select Access Time	t _{ACS}	-	70	-	85	-	100
Output Enable to Output Valid	t _{OE}	-	35	-	45	-	50
Output Hold from Address Change	t _{OH}	5	-	5	-	10	-
Chip Selection to Output Low Z	t _{CLZ}	10	-	10	-	10	-
Output Enable to Output in Low Z	t _{CLZ}	5	-	5	-	5	-
Chip Deselection to Output in High Z	t _{CHZ}	0	30	0	30	0	35
Output Disable to Output in High Z	t _{OHZ}	0	30	0	30	0	35

Timing Waveform of Read Cycle



DC and Operating Characteristics

(V_{CC} = 5V ±10%, GND = 0V, $T_a = -55$ to $+125^\circ\text{C}$)

Item	Symbol	Test Condition	min	typ	max	Unit
Input Leakage Current	I _{IL}	V _{IN} = GND to V _{CC}	-	-	0.5	μA
Output Leakage Current	I _{LO}	CS = V _{IH} or OE = V _{IH} , V _{I/O} = GND to V _{CC}	-	-	0.5	μA
Operating Power Supply Current	I _{CC1}	CS = V _{IL} , I _{LO} = 0mA	-	8	15	mA
Average Operating Supply Current	-70	Min Cycle, duty = 100%, I _{LO} = 0mA	-	45	70	mA
	-85		-	40	70	
	-100		-	35	70	
Standby Power Supply Current	I _{SB2}	CS = V _{IH}	-	0.2	2	mA
	I _{SB1}	CS ≥ V _{CC} - 0.2V	-	2	100	μA
Output Voltage	V _{OL}	I _{OL} = 2.1 mA	-	-	0.4	V
	V _{OH}	I _{OH} = -1.00 mA	2.4	-	-	V

Category S2 Screening Level B

PRE CAP INSPECTION
BS9400 1.2.10 LEVEL B

HIGH TEMPERATURE STORAGE
BS9400 1.2.6.3
150°C For 24 Hours

RAPID CHANGE OF TEMPERATURE
BS9400 1.2.6.13
10 CYCLES -65°C TO +150°C

ACCELERATION STEADY STATE
BS9400 1.2.6.9
294000m/s² Direction Y1*

ELECTRICAL TESTS AT 25°C

BURN-IN SCREEN
BS9400 1.2.9.2 160 Hours min at 125°C

FINAL ELECTRICAL TESTS,
STATIC & DYNAMIC,
AT 25°C, 125°C & -55°C

FINE AND GROSS LEAK TESTS
BS9400 1.2.6.14

SAMPLE TESTS to Groups A, B, C
as appropriate

* Direction Y1 is the direction which tends to separate the bonds.