

Am99C58/Am99C59

4096 x 4 CMOS Static Random-Access Memory

ADVANCE INFORMATION

DISTINCTIVE CHARACTERISTICS

- 4096 x 4 organization
- High Speed
 - 25 ns t_{AA} Maximum
 - 15 ns t_{ACS} Maximum (Am99C59)
- Separate data inputs and outputs
- Automatic power-down when deselected (Am99C58)
- Maximum power dissipation: 990 mW
- Maximum standby power dissipation: 220 mW (Am99C58)
- TTL-compatible inputs and outputs
- Single +5-V $\pm 10\%$ power supply
- Slim 24-pin, 300-mil DIP and 28-pin ceramic leadless carrier

GENERAL DESCRIPTION

The Am99C58 and Am99C59 are high-performance CMOS Static RAMs organized as 4096 words by 4 bits. They are manufactured using an advanced high-performance CMOS process that combines high speed with low-power consumption and increased reliability.

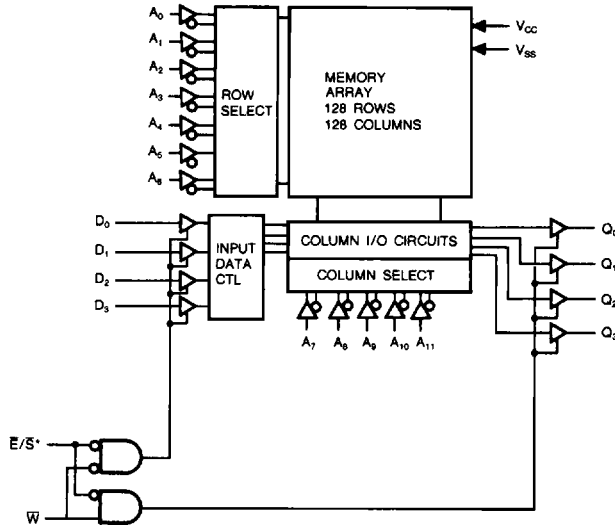
Both devices feature access times as fast as 25 ns and separate data inputs and outputs. The Am99C58 and Am99C59 operate from a single 5-V supply and all inputs and outputs are fully TTL-compatible. The Am99C58 provides a Chip Enable (\bar{E}) function that automatically powers down the device when deselected. The Am99C59 provides

a Chip Select (\bar{S}) function that offers a chip select access time of 15 ns.

Two inputs, \bar{E}/\bar{S}^* and \bar{W} , are used to control the device. Chip Enable/Select (\bar{E}/\bar{S}^*) selects the device for operation and provides for easy memory expansion. Write Enable (\bar{W}) controls write and read operations. The data outputs will be in a high-impedance state when \bar{E}/\bar{S}^* is HIGH, or \bar{W} is LOW.

The Am99C58 and Am99C59 are packaged in a slim 24-pin, 300-mil DIP or 28-pin ceramic leadless chip carrier.

BLOCK DIAGRAM



BD006491

* \bar{E} =Am99C58
 \bar{S} =Am99C59

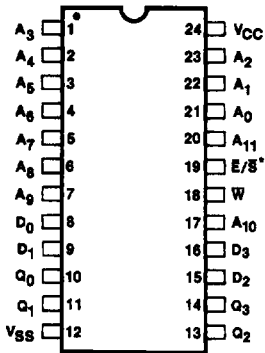
Am99C58/Am99C59

Publication #	Rev.	Amendment
08116	A	/0
Issue Date: May 1986		

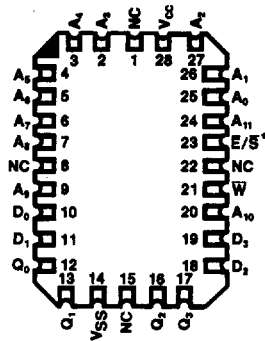
PRODUCT SELECTOR GUIDE

Part Number	Am99C58			Am99C59		
	-25	-35	-45	-25	-35	-45
Access Time Max. (ns)	25	35	45	25	35	45
0 to +70°C	I _{CC} Max. (mA)	180	180	180	180	180
	I _{SB} Max. (mA)	40	40	40	—	—
-55 to +125°C	I _{CC} Max. (mA)	—	180	180	180	180
	I _{SB} Max. (mA)	—	40	40	—	—

CONNECTION DIAGRAMS Top View



CD009012

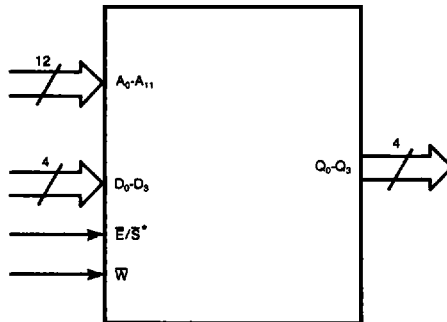


CD005933

* \bar{E} = Am99C58
 \bar{S} = Am99C59

Note: Pin 1 is marked for orientation.

LOGIC SYMBOL



LS009651

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 \bar{S} = Am99C59