



Silicon Gate MOS 2102A

1024 BIT FULLY DECODED STATIC MOS
RANDOM ACCESS MEMORY

*Fast Access Time -- 350 ns max.

- Single +5 Volts Supply Voltage
- Directly TTL Compatible — All Inputs and Output
- Static MOS — No Clocks or Refreshing Required
- Low Power — Typically 150 mW
- Three-State Output — OR-Tie Capability
- Simple Memory Expansion — Chip Enable Input
- Fully Decoded — On Chip Address Decode
- Inputs Protected — All Inputs Have Protection Against Static Charge
- Low Cost Packaging — 16 Pin Plastic Dual-In-Line Configuration

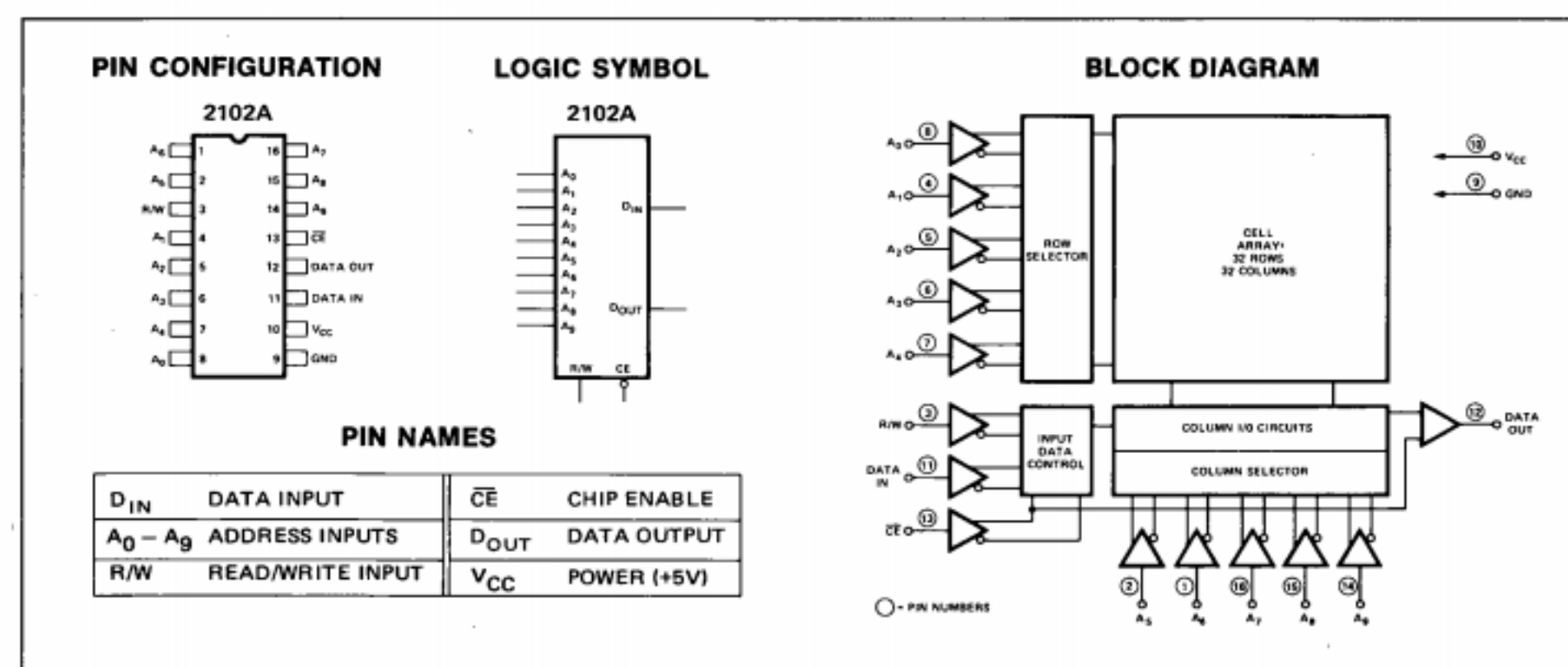
The Intel 2102A is a high speed 1024 word by one bit static random access memory element using N-channel MOS devices integrated on a monolithic array. It uses fully DC stable (static) circuitry and therefore requires no clocks or refreshing to operate. The data is read out nondestructively and has the same polarity as the input data.

The 2102A is designed for memory applications where high performance, low cost, large bit storage, and simple interfacing are important design objectives. A low standby power version (order as a 2102A/S1172) is also available. It has all the same operating characteristics of the 2102A with the added feature of 42 mW maximum power dissipation in standby.

It is directly TTL compatible in all respects: inputs, output, and a single +5 volt supply. A separate chip enable (CE) lead allows easy selection of an individual package when outputs are OR-tied.

The Intel 2102A is fabricated with N-channel silicon gate technology. This technology allows the design and production of high performance easy to use MOS circuits and provides a higher functional density on a monolithic chip than either conventional MOS technology or P-channel silicon gate technology.

Intel's silicon gate technology also provides excellent protection against contamination. This permits the use of low cost silicone packaging.



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Absolute Maximum Ratings*

Ambient Temperature Under Bias	0°C to 70°C
Storage Temperature	-65°C to +150°C
Voltage On Any Pin With Respect To Ground	-0.5V to +7V
Power Dissipation	1 Watt

*COMMENT:

Stresses above those listed under "Absolute Maximum Rating" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or at any other condition above those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

D. C. and Operating Characteristics

T_A = 0°C to +70°C, V_{CC} = 5V ±5% unless otherwise specified.