Memories

- Non-volatile memory
 - A non-volatile memory can keep the data if it's unpowered.
- Volatile memory
 - A volatile memory can't keep information without any external power.

RAM, Random Access Memory

SRAM, Static RAM

http://en.wikipedia.org/wiki/Static_random-access_memory

DRAM, Dynamic RAM

http://en.wikipedia.org/wiki/Dynamic_random_access_memory

FRAM, Ferroelectric RAM

http://en.wikipedia.org/wiki/Ferroelectric_RAM



ROM memories

EPROM

http://en.wikipedia.org/wiki/EPROM

• EEPROM

http://en.wikipedia.org/wiki/EEPROM



Flash Memory

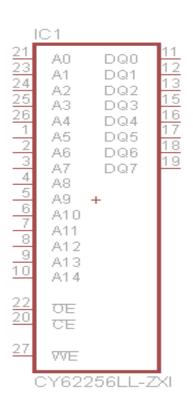
 Non-volatile memory that can be electrically erased and reprogrammed. It was developed from EEPROM (electrically erasable programmable read-only memory) and must be erased in fairly large blocks before these can be rewritten with new data

http://en.wikipedia.org/wiki/Flash_memory



Example RAM Circuit

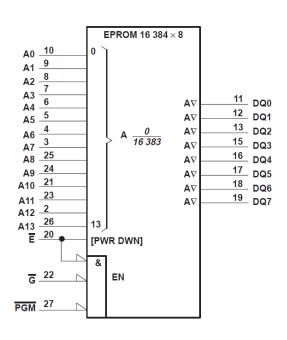
- •A0-A14, address bus interface
- •DQ0-DQ7, data bus interface
- Control bus interface
 - ➤ Chip enable (CE)
 - ➤ Read (=output enable=OE)
 - ➤ Write (=write enable=WE)



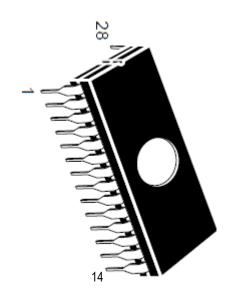


Example EPROM Circuit

Schematic symbol



Physical package



Layout symbol

