25AA320/25LC320/25C320

32K SPI™ Bus Serial EEPROM

Device Selection Table

Part Number	Vcc Range	Max. Clock Frequency	Temp. Ranges
25AA320	1.8-5.5V	1 MHz	I
25LC320	2.5-5.5V	2 MHz	I,E
25C320	4.5-5.5V	3 MHz	I,E

Features:

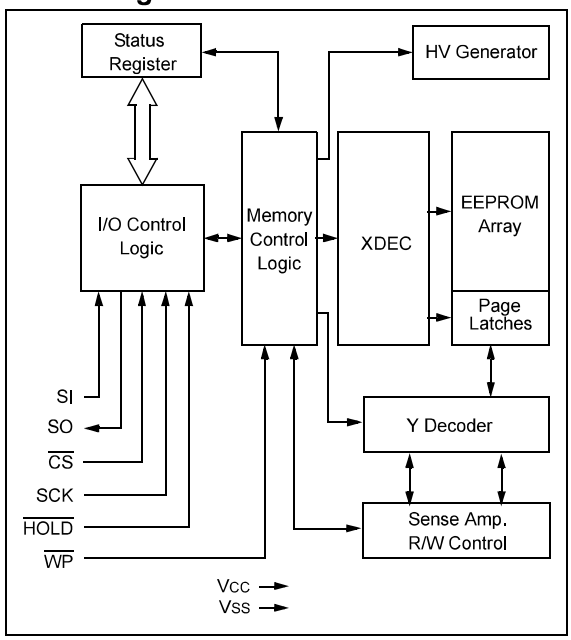
- Low-power CMOS technology:
  - Write current: 3 mA maximum
  - Read current: 500 μA typical
  - Standby current: 500 nA typical
- 4096 x 8 bit organization
- 32 byte page
- Write cycle time: 5 ms maximum
- Self-timed erase and write cycles
- Block write protection:
  - Protect none, 1/4, 1/2 or all of array
- Built-in write protection:
  - Power on/off data protection circuitry
  - Write enable latch
  - Write-protect pin
- Sequential read
- High reliability:
  - Endurance: 1M E/W cycles
  - Data retention: > 200 years
  - ESD protection: > 4000V
- 8-pin PDIP, SOIC and TSSOP packages
- 14-lead TSSOP package
- Temperature ranges supported:
  - Industrial (I): -40°C to +85°C
  - Automotive (E): -40°C to +125°C

Description:

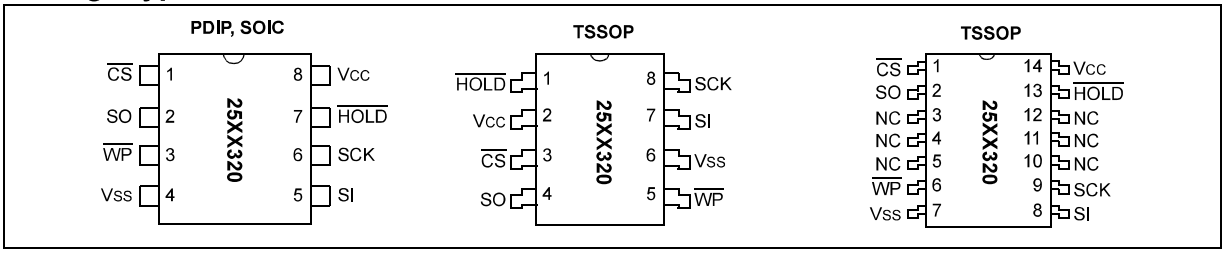
The Microchip Technology Inc. 25AA320/25LC320/25C320 (25XX320*) are 32 Kbit serial Electrically Erasable PROMs. The memory is accessed via a simple Serial Peripheral Interface (SPI™) compatible serial bus. The bus signals required are a clock input (SCK) plus separate data in (SI) and data out (SO) lines. Access to the device is controlled through a Chip Select (CS) input.

Communication to the device can be paused via the hold pin (HOLD). While the device is paused, transitions on its inputs will be ignored, with the exception of Chip Select, allowing the host to service higher priority interrupts.

Block Diagram



Package Types



*25XX320 is used in this document as a generic part number for the 25AA320/25LC320/25C320 devices.