CATALYST SEMICONDUCTOR

CAT28F001

1 Megabit CMOS Boot Block Flash Memory

FEATURES

- Fast Read Access Time: 90/120/150 ns
- On-Chip Address, Data Latches, Programming and Erase Algorithms
- Blocked Architecture:
  - One 8 KB Boot Block w/ Lock Out
  - Two 4 KB Parameter Blocks
  - One 112 KB Main Block
- Low Power CMOS Operation
- 12.0V ± 5% Programming and Erase Voltage
- Embedded Algorithms Program & Erase
- High Speed Programming
- Deep Powerdown Mode
  - 0.05 μA I_{CC} Typical
  - 0.8 μA I_{PP} Typical
- Electronic Signature
- 100,000 Program/Erase Cycles and 10 Year Data Retention
- JEDEC Standard Pinouts:
  - 32 pin DIP
  - 32 pin PLCC
  - 32 pin TSOP
- Commercial and Industrial Temperature Ranges

DESCRIPTION

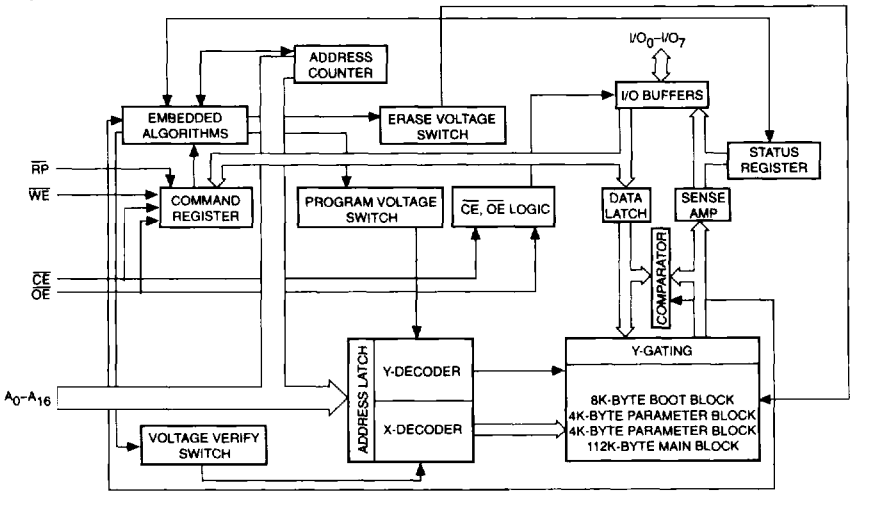
The CAT28F001 is a high speed 128K X 8 bit electrically erasable and reprogrammable Flash memory ideally suited for applications requiring in-system or after sale code updates.

The CAT28F001 has a blocked architecture with one 8 KB Boot Block, two 4 KB Parameter Blocks and one 112 KB Main Block. The Boot Block section optionally can be at the top or bottom of the memory map and includes a reprogramming write lock out feature to guarantee data integrity. It is designed to contain secure code which will bring up the system minimally and download code to other locations of CAT28F001.

The CAT28F001 is designed with a signature mode which allows the user to identify the IC manufacturer and device type. The CAT28F001 is also designed with on-Chip Address Latches, Data Latches, Programming and Erase Algorithms.

The CAT28F001 is manufactured using Catalyst's advanced CMOS floating gate technology. It is designed to endure 100,000 program/erase cycles and has a data retention of 10 years. The device is available in JEDEC approved 32-pin PDIP, PLCC or TSOP packages.

BLOCK DIAGRAM



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