4M x 8 Bit NAND Flash Memory

FEATURES

- Voltage Supply : 2.7V ~ 5.5V
- Organization
  - Memory Cell Array : (4M + 128K)bit x 8bit
  - Data Register : (512 + 16)bit x8bit
- Automatic Program and Erase
  - Page Program : (512 + 16)Byte
  - Block Erase : (8K + 256)Byte
- 528-Byte Page Read Operation
- Command/Address/Data Multiplexed I/O port
- Hardware Data Protection
  - Program/Erase Lockout During Power Transitions
- Reliable CMOS Floating-Gate Technology
- Command Register Operation

GENERAL DESCRIPTION

The KM29W32000K1 is an 4M(4,194,304)x8bit Die of NAND Flash Memory with a spare 128K(131,072)x8bit. Its NAND cell provides the most cost-effective solution for the solid state mass storage system. A program operation could be program the 528-byte simultaneously and an erase unit is an 8K-byte block. In read operation can support fast serial read out mode upto 528-byte. The I/O pins serve as the ports for address and data input/output as well as command inputs. That multiplexed I/O interface can reduced the control pin counts and it gives a benefit for the use of Die product. The on-chip write controller automates all program and erase functions including pulse repetition, where required, and internal verify and margining of data. The KM29W32000K1 is recommended that the use of ECC(Error Correcting Code) and real time mapping-out algorithm for the high reliability. These algorithms have been implemented in many mass storage applications and also the spare 16 bytes of a page combined with the other 512 bytes can be utilized by system-level ECC.

The KM29W32000K1 is an optimum solution for large nonvolatile storage applications such as solid state file storage, digital voice recorder, digital still camera and other portable applications requiring non-volatility.

OPTIONS

- Bare Die : Functionally test only

GENERAL ORDERING INFORMATION

- 4M×8   2.7V ~ 5.5V Bare Die   KM29W32000K1

PACKAGING OPTIONS

- Chip Trays (Waffle Pack)

FUNCTIONAL SPECIFICATIONS

Please refer to the packaged product data sheet found in the applicable SAMSUNG Flash Memory data book for functional and parametric specifications.   For bare die, these specifications are provided for reference only and SAMSUNG makes no guarantees or warranties on level die.

RECOMMENDATION FOR SYSTEM DESIGN-IN

The KM29W32000K1 is recommended that the use of ECC(Error Correcting Code) and real time mapping-out algorithm for the high reliability.

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