



2 Kbit Serial EEPROM for DIMM Serial Presence Detect

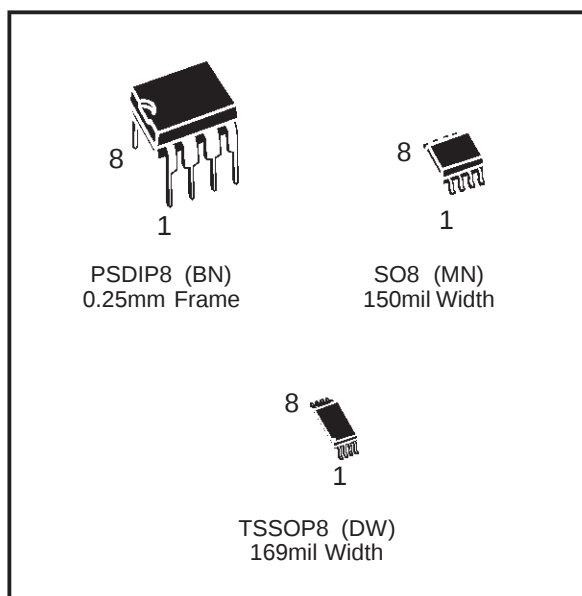
DATA BRIEFING

- TWO WIRE I²C SERIAL INTERFACE, SUPPORTS 400kHz PROTOCOL
- 1 MILLION ERASE/WRITE CYCLES
- 40 YEARS DATA RETENTION
- SINGLE SUPPLY VOLTAGE:
 - 4.5V to 5.5V for M34C02
 - 2.5V to 5.5V for M34C02-W
 - 1.8V to 3.6V for M34C02-R
- SOFTWARE WRITE PROTECTION FOR LOWER 128 BYTES
- HARDWARE WRITE PROTECTION FOR ENTIRE ARRAY
- BYTE and PAGE WRITE (up to 16 BYTES)
- BYTE, RANDOM and SEQUENTIAL READ MODES
- SELF TIMED PROGRAMMING CYCLE
- AUTOMATIC ADDRESS INCREMENTING
- ENHANCED ESD and LATCH-UP PERFORMANCES

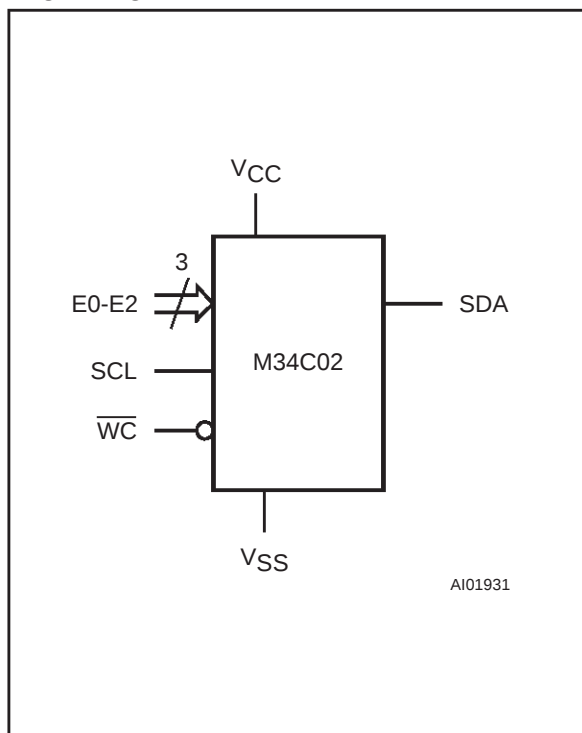
DESCRIPTION

The M34C02 is a 2 Kbit electrically erasable programmable memory (EEPROM), organized as 256 x8 bits, designed for use as the Serial Presence Detect Memory for new DRAM DIMM modules.

The M34C02 includes a software write protection feature for the bottom half of the memory area. By sending the device a specific sequence, the first 128 bytes of the memory can be permanently write protected. Care must be taken when using this sequence as it cannot be reversed. The M34C02 include also a $\overline{WC}$ input which, when tied to V_{CC} , allows the entire memory area to be write protected.

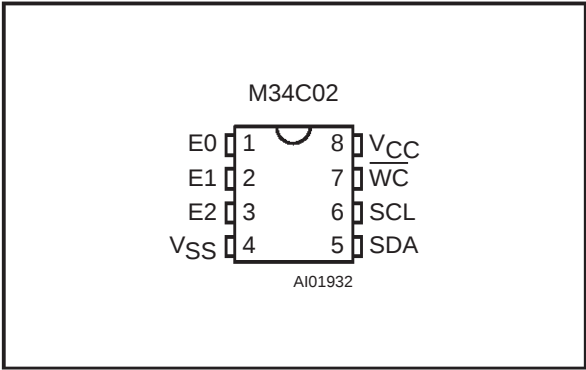


Logic Diagram

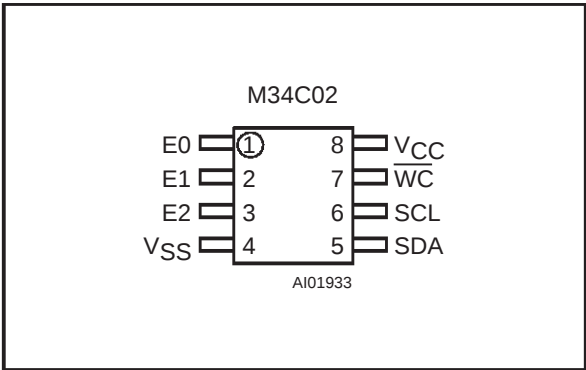


M34C02

DIP Pin Connections



SO and TSSOP Pin Connections



Signal Names

E0-E2	Chip Enable Inputs
SDA	Serial Data Address Input/Output
SCL	Serial Clock
$\overline{WC}$	Write Control
V _{CC}	Supply Voltage
V _{SS}	Ground

Ordering Information Scheme

For a list of available options or for further information on any aspect of this device, please contact the STMicroelectronics Sales Office nearest to you.

Example: M34C02 – R MN 5 T

Operating Voltage	
blank	4.5V to 5.5V
W	2.5V to 5.5V
R ⁽²⁾	1.8V to 3.6V
Package	
BN	PSDIP8 0.25mm Frame
MN	SO8 150mil Width
DW	TSSOP8 169mil Width
Temp. Range	
1 ⁽¹⁾	0 to 70 °C
5	–20 to 85 °C
6	–40 to 85 °C
Option	
T	Tape & Reel Packing

Note: 1. Temperature range on request only.
2. -R version (1.8V to 3.6V) are only available in temperature ranges 5 or 1.

Devices are shipped from the factory with the memory content set at all "1's" (FFh).