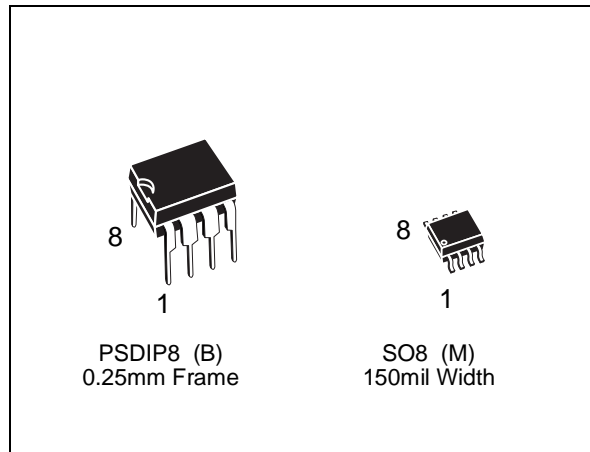


## SERIAL 2K (256 x 8) EEPROM

### DATA BRIEFING

- 1 MILLION ERASE/WRITE CYCLES with 40 YEARS DATA RETENTION
- SINGLE SUPPLY VOLTAGE:
  - 3V to 5.5V for ST24x02 versions
  - 2.5V to 5.5V for ST25x02 versions
  - 1.8V to 5.5V for ST24C02R version only
- HARDWARE WRITE CONTROL VERSIONS: ST24W02 and ST25W02
- TWO WIRE SERIAL INTERFACE, FULLY I<sup>2</sup>C BUS COMPATIBLE
- BYTE and MULTIBYTE WRITE (up to 4 BYTES)
- PAGE WRITE (up to 8 BYTES)
- BYTE, RANDOM and SEQUENTIAL READ MODES
- SELF TIMED PROGRAMMING CYCLE
- AUTOMATIC ADDRESS INCREMENTING
- ENHANCED ESD/LATCH-UP PERFORMANCES

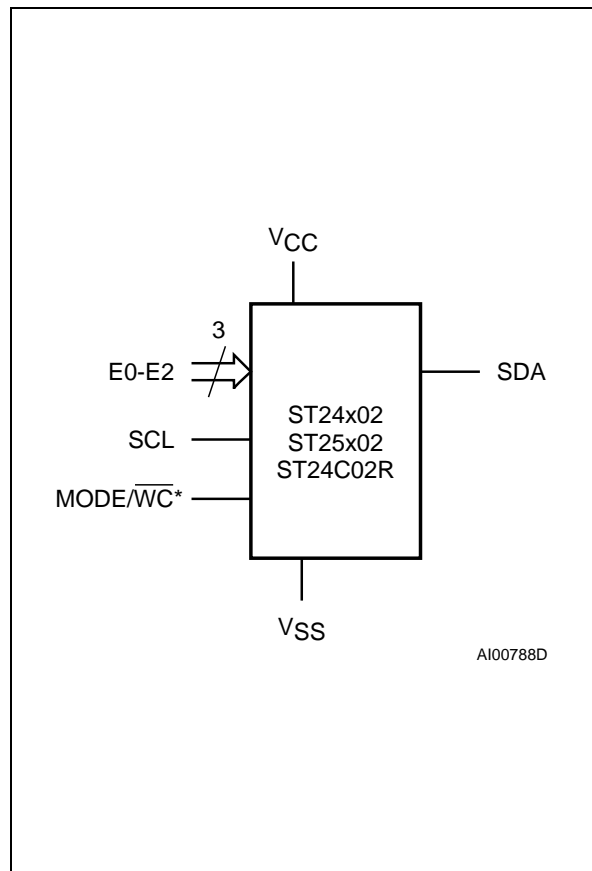


### DESCRIPTION

This specification covers a range of 2K bits I<sup>2</sup>C bus EEPROM products, the ST24/25C02, the ST24C02R and ST24/25W02. In the text, products are referred to as ST24/25x02, where "x" is: "C" for Standard version and "W" for hardware Write Control version.

The ST24/25x02 are 2K bit electrically erasable programmable memories (EEPROM), organized as 256 x 8 bits. They are manufactured in SGS-THOMSON's Hi-Endurance Advanced CMOS technology which guarantees an endurance of one million erase/write cycles with a data retention of 40 years. The memories operate with a power supply value as low as 1.8V for the ST24C02R only. Both Plastic Dual-in-Line and Plastic Small Outline packages are available.

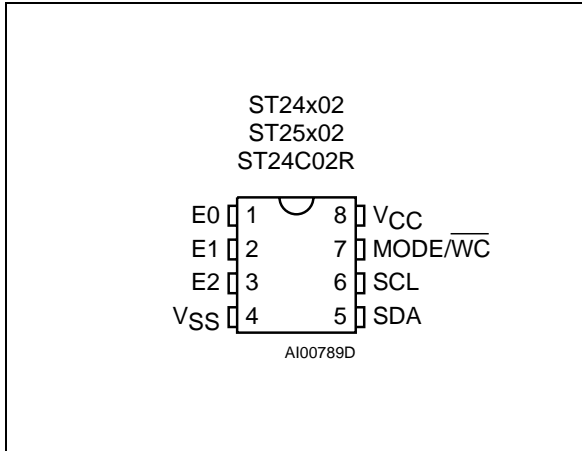
### Logic Diagram



**Note:** WC signal is only available for ST24/25W02 products.

# ST24/25C02, ST24C02R, ST24/25W02

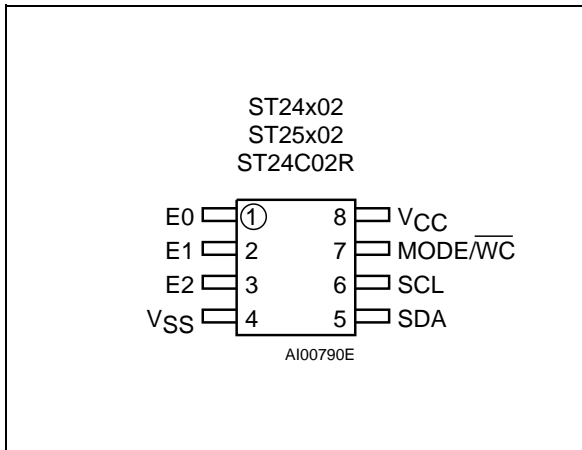
## DIP Pin Connections



## Signal Names

E0-E2	Chip Enable Inputs
SDA	Serial Data Address Input/Output
SCL	Serial Clock
MODE	Multibyte/Page Write Mode (C version)
$\overline{WC}$	Write Control (W version)
Vcc	Supply Voltage
Vss	Ground

## SO Pin Connections



## Ordering Information Scheme

For a list of available options refer to the current Memory Shortform catalogue.

For further information on any aspect of this device, please contact the SGS-THOMSON Sales Office nearest to you.

Example: ST24C02 M 1 TR

	Operating Voltage	Range
24C02	3V to 5.5V	Standard
24W02	3V to 5.5V	HW Write Control
25C02	2.5V to 5.5V	Standard
25W02	2.5V to 5.5V	HW Write Control
24C02R	1.8V to 5.5V	Standard

Package
B PSDIP8 0.25mm Frame
M SO8 150mil Width

Temp. Range
1 0 to 70 °C
5 -20 to 85 °C
6 -40 to 85 °C
3 -40 to 125 °C

Option
TR Tape & Reel Packing