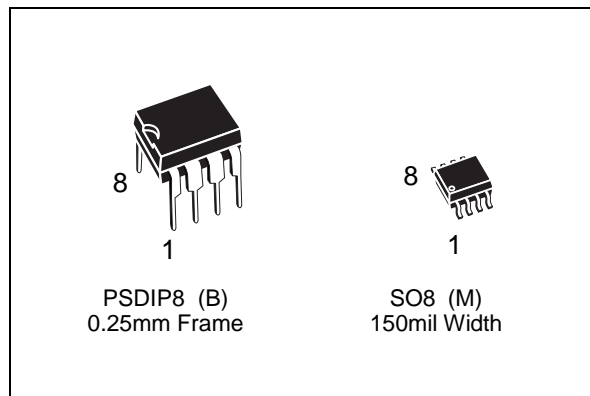


16K SERIAL I<sup>2</sup>C EEPROM  
with EXTENDED ADDRESSING

DATA BRIEFING

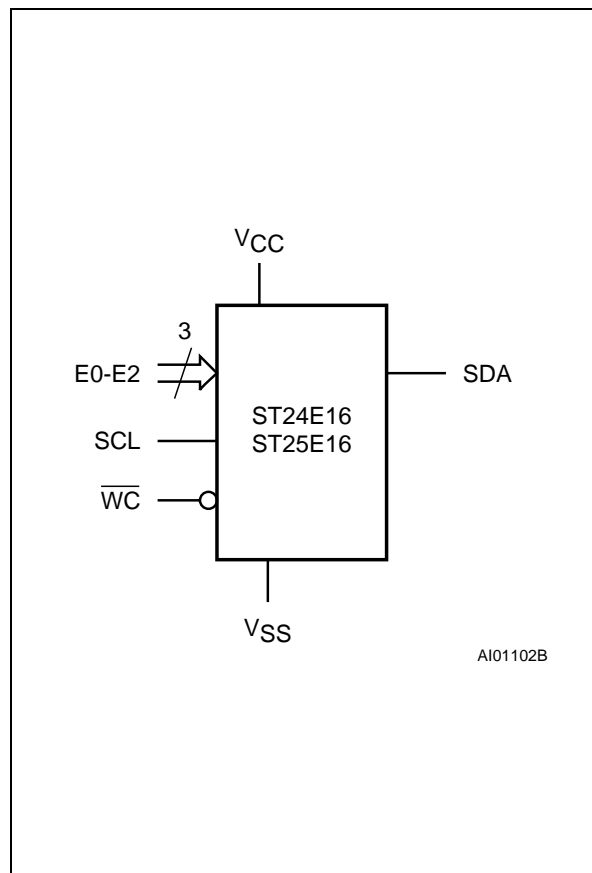
- COMPATIBLE with I<sup>2</sup>C EXTENDED ADDRESSING
- TWO WIRE SERIAL INTERFACE, SUPPORTS 400kHz PROTOCOL
- 1 MILLION ERASE/WRITE CYCLES, OVER the FULL SUPPLY VOLTAGE RANGE
- 40 YEARS DATA RETENTION
- SINGLE SUPPLY VOLTAGE
  - 4.5V to 5.5V for ST24E16 version
  - 2.5V to 5.5V for ST25E16 version
- WRITE CONTROL FEATURE
- BYTE and PAGE WRITE (up to 16 BYTES)
- BYTE, RANDOM and SEQUENTIAL READ MODES
- SELF TIMED PROGRAMING CYCLE
- AUTOMATIC ADDRESS INCREMENTING
- ENHANCED ESD/LATCH UP PERFORMANCES



**DESCRIPTION**

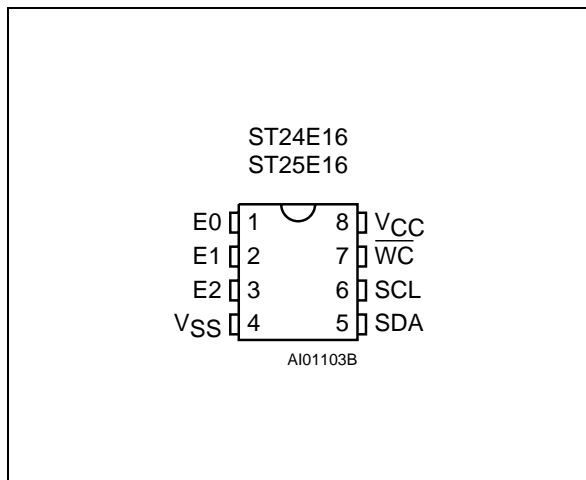
The ST24/25E16 are 16K bit electrically erasable programmable memories (EEPROM), organized as 8 blocks of 256 x 8 bits. It is manufactured in SGS-THOMSON's Hi-Endurance Advanced CMOS technology which guarantees an endurance of one million erase/write cycles over the full supply voltage range, and a data retention of over 40 years. The ST25E16 operates with a power supply value as low as 2.5V.

**Logic Diagram**



## ST24E16, ST25E16

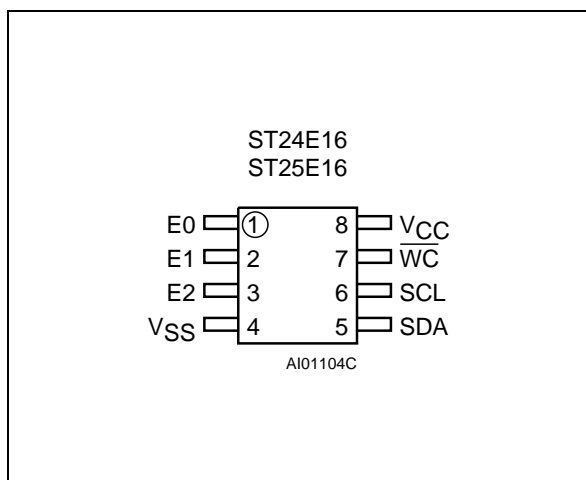
### DIP Pin Connections



### Signal Names

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

### SO Pin Connections



### Ordering Information Scheme

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

Example: ST24E16 M 1 TR

<b>Operating Voltage</b>	ST24E16	M	1	TR
24	4.5V to 5.5V			
25	2.5V to 5.5V			
<b>Range</b>				
E	Extended Addressing			
<b>Package</b>				
B	PSDIP8 0.25mm Frame			
M	SO8 150mil Width			
<b>Temp. Range</b>				
1	0 to 70 °C			
6	-40 to 85 °C			
3 <sup>(1)</sup>	-40 to 125 °C			
<b>Option</b>				
TR	Tape & Reel Packing			

**Notes:** 1. Temperature range on special request only.

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