SGS-THOMSON MICROELECTRONICS

ST93CS46
ST93CS47

## SERIAL MICROWIRE BUS 1K (64 x 16) EEPROM

- 1 MILLION ERASE/WRITE CYCLES, with 40 YEARS DATA RETENTION
- SELF-TIMED PROGRAMMING CYCLE with AUTO-ERASE
- READY/BUSY SIGNAL DURING PROGRAMMING
- SINGLE SUPPLY VOLTAGE
  - 3V to 5.5V for the ST93CS46
  - 2.5V to 5.5V for the ST93CS47
- USER DEFINED WRITE PROTECTED AREA
- PAGE WRITE MODE (4 WORDS)
- SEQUENTIAL READ OPERATION
- 5ms TYPICAL PROGRAMMING TIME

PSDIP8 (B)
0.4mm Frame
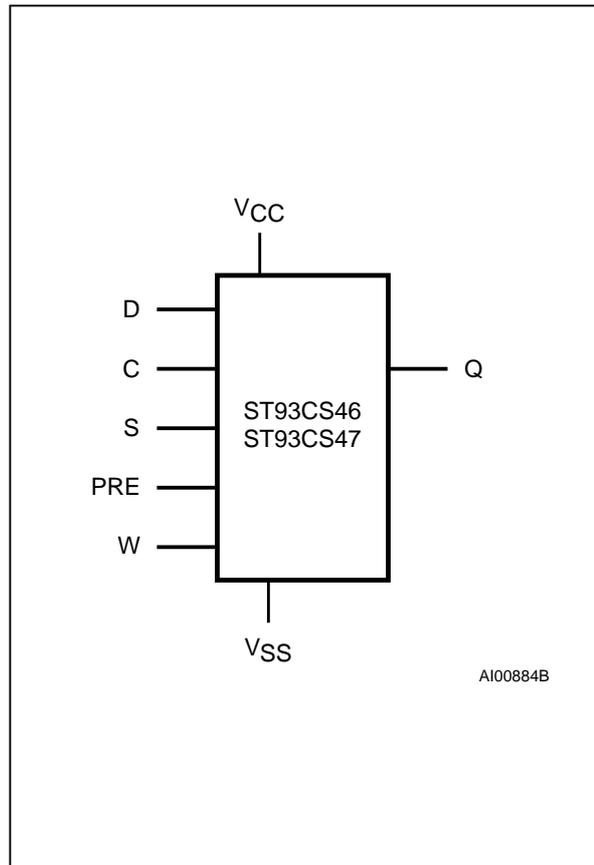
SO8 (M)
150mil Width
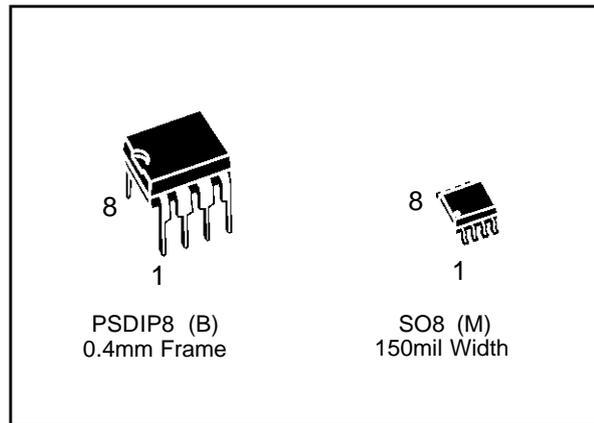
DESCRIPTION

The ST93CS46 and ST93CS47 are 1K bit Electrically Erasable Programmable Memory (EEPROM) fabricated with SGS-THOMSON's High Endurance Single Polysilicon CMOS technology. The memory is accessed through a serial input D and output Q.
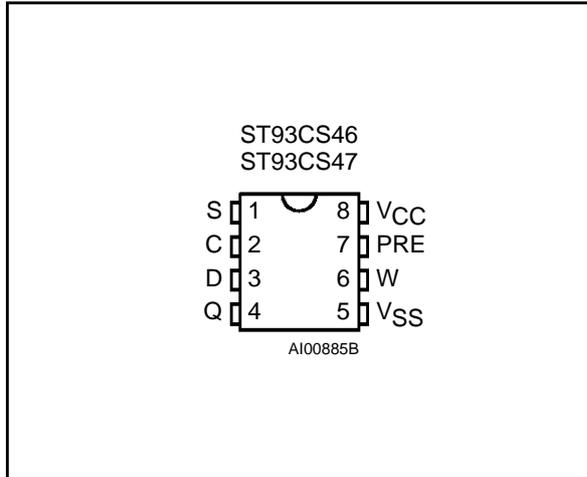
The 1K bit memory is organized as 64 x 16 bit words. The memory is accessed by a set of instructions which include Read, Write, Page Write, Write All and instructions used to set the memory protection. A Read instruction loads the address of the first word to be read into an internal address pointer.

Logic Diagram

AI00884B

Complete data available on *DATA-on-DISC CD-ROM* or at *www.st.com*

DIP Pin Connections

ST93CS46
ST93CS47

S	1	8	V_{CC}
C	2	7	PRE
D	3	6	W
Q	4	5	V_{SS}

AI00885B

SO Pin Connections

ST93CS46
ST93CS47

S	1	8	V_{CC}
C	2	7	PRE
D	3	6	W
Q	4	5	V_{SS}

AI00886C

Signal Names

S	Chip Select Input
D	Serial Data Input
Q	Serial Data Output
C	Serial Clock
PRE	Protect Enable
W	Write Enable
V_{CC}	Supply Voltage
V_{SS}	Ground

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.
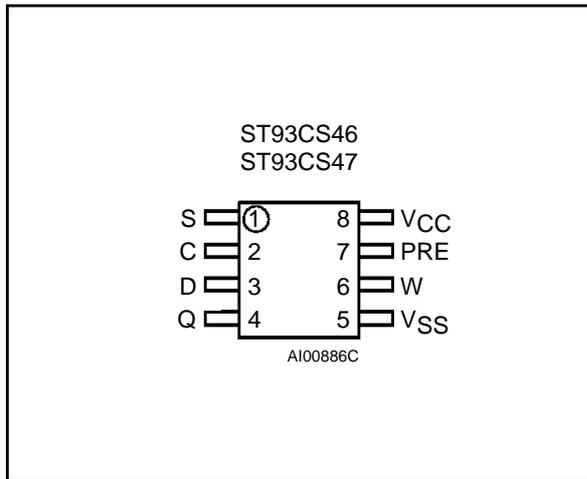
Example: ST93CS46   M   1   013TR

Operating Voltage

46   3V to 5.5V

47   2.5V to 5.5V

Package

B   PSDIP8
     0.4mm Frame

M   SO8
     150mil Width

Temp. Range

1   0 to 70 °C

6   –40 to 85 °C

3   –40 to 125 °C

Option

013TR Tape & Reel
      Packing