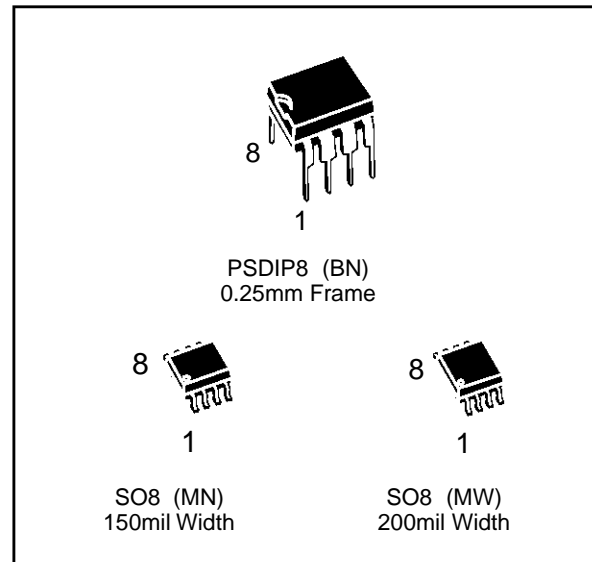


SERIAL EXTENDED ADDRESSING COMPATIBLE WITH I²C BUS 32K (4K x 8) EEPROM

DATA BRIEFING

- COMPATIBLE with I²C EXTENDED ADDRESSING
- TWO WIRE SERIAL INTERFACE, SUPPORTS 400kHz PROTOCOL
- 100,000 ERASE/WRITE CYCLES, OVER the FULL SUPPLY VOLTAGE RANGE
- 40 YEARS DATA RETENTION
- SINGLE SUPPLY VOLTAGE
 - 4.5V to 5.5V for M24C32 version
 - 1.8V to 5.5V for M24C32-R version
- WRITE CONTROL FEATURE
- BYTE and PAGE WRITE (up to 32 BYTES)
- BYTE, RANDOM and SEQUENTIAL READ MODES
- SELF TIMED PROGRAMING CYCLE
- AUTOMATIC ADDRESS INCREMENTING
- ENHANCED ESD/LATCH UP PERFORMANCES

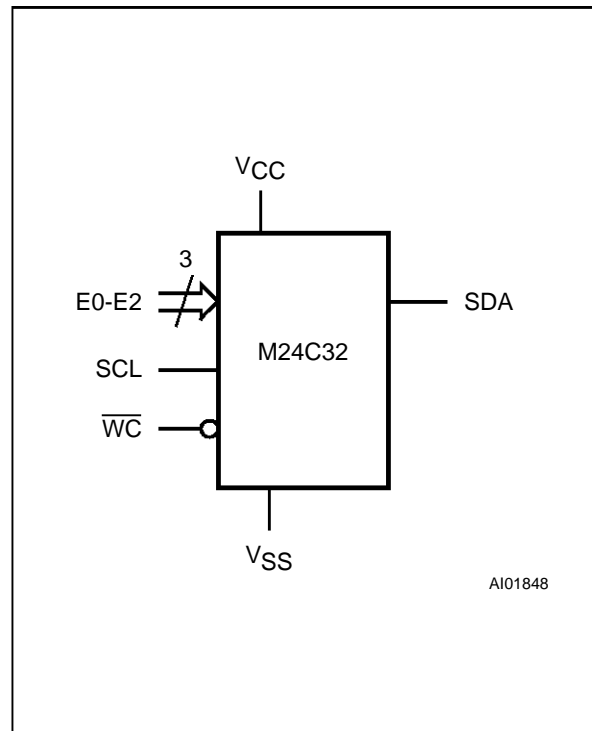


DESCRIPTION

The M24C32 is a 32K bit electrically erasable programmable memory (EEPROM), organized as 8 blocks of 512 x 8 bits. The M24C32-R operates with a power supply value as low as 1.8V. Both Plastic Dual-in-Line and Plastic Small Outline packages are available.

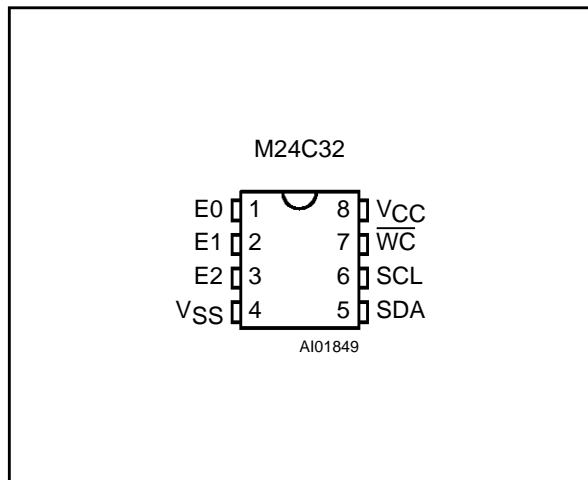
Each memory is compatible with the I²C extended addressing standard, two wire serial interface which uses a bi-directional data bus and serial clock. The M24C32 carries a built-in 4 bit, unique device identification code (1010) corresponding to the I²C bus definition. The M24C32 behaves as slave devices in the I²C protocol with all memory operations synchronized by the serial clock. Read and write operations are initiated by a START condition generated by the bus master. The START condition is followed by a stream of 4 bits (identification code 1010), 3 bit Chip Enable input to form a 7 bit Device Select, plus one read/write bit and terminated by an acknowledge bit.

Logic Diagram



M24C32

DIP Pin Connections



Signal Names

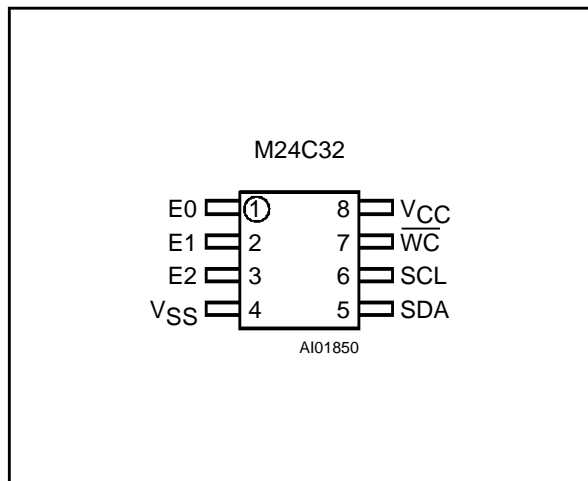
E0 - E2	Chip Enable Inputs
SDA	Serial Data Address Input/Output
SCL	Serial Clock
\overline{WC}	Write Control
V _{CC}	Supply Voltage
V _{SS}	Ground

Ordering Information Scheme

For a list of available options 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.

SO Pin Connections



Example: M24C32 -R MN 1 T

Operating Voltage	-R	MN	1	T
blank	4.5V to 5.5V			
R	1.8V to 5.5V			
Package				
BN	PSDIP8			
	0.25mm Frame			
MN	SO8			
	150mil Width			
MW	SO8			
	200mil Width			
Temp. Range				
1	0 to 70 °C			
6	-40 to 85 °C			
3	-40 to 125 °C			
Option				
T	Tape & Reel Packing			