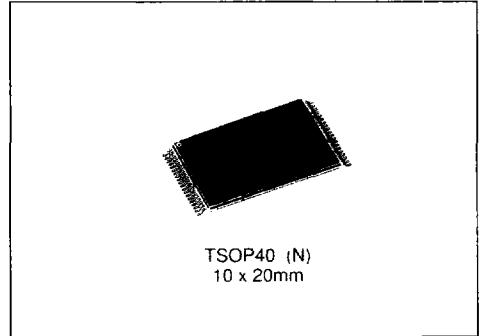


## 2 Mb (256K x 8, Block Erase) LOW VOLTAGE FLASH MEMORY

### DATA BRIEFING

- 2.7V to 3.6V SUPPLY VOLTAGE
- 12V ± 5% PROGRAMMING VOLTAGE
- FAST ACCESS TIME: 100ns
- PROGRAM/ERASE CONTROLLER (P/E.C.)
- AUTOMATIC STATIC MODE
- MEMORY ERASE in BLOCKS
  - Boot Block (Top location) with hardware write and erase protection
  - Parameter and Main Blocks
- 100,000 PROGRAM/ERASE CYCLES
- LOW POWER CONSUMPTION
- ELECTRONIC SIGNATURE
  - Manufacturer Code: 20h
  - Device Code: E5h



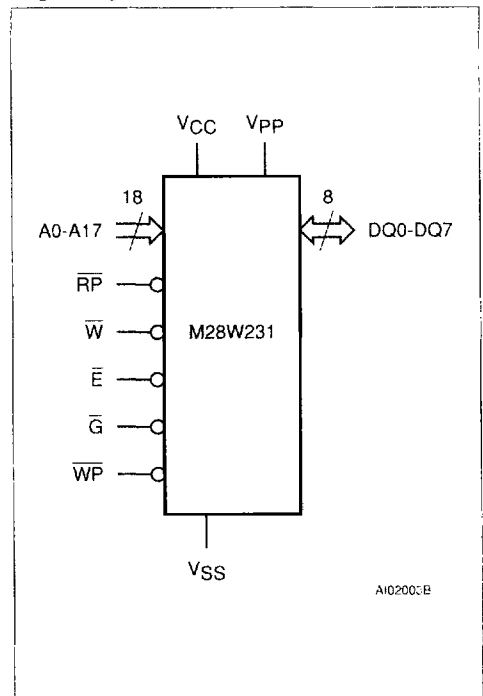
### DESCRIPTION

The M28W231 Flash memory is a non-volatile memory that may be erased electrically at the block level and programmed by byte. The interface is directly compatible with most microprocessors. TSOP40 (10 x 20mm) package is used.

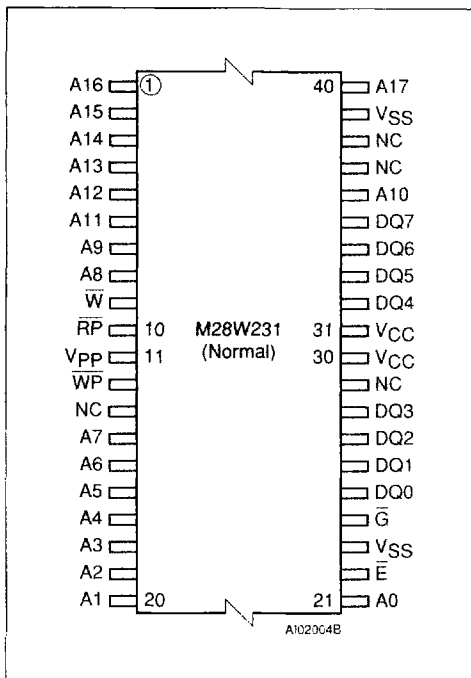
### Signal Names

A0-A17	Address Inputs
DQ0-DQ7	Data Input / Outputs
$\bar{E}$	Chip Enable
$\bar{G}$	Output Enable
$\bar{W}$	Write Enable
$\bar{WP}$	Write Protect
$\bar{RP}$	Reset/Power Down/Boot Block Unlock
V <sub>PP</sub>	Program & Erase Supply Voltage
V <sub>CC</sub>	Supply Voltage
V <sub>SS</sub>	Ground

### Logic Diagram



TSOP Pin Connections

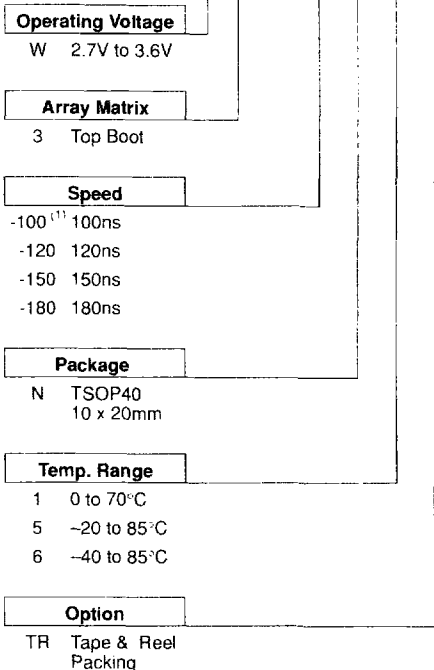


Warning: NC = Not Connected.

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: M28W231 -100 N 1 TR



Notes: 1. This speed is obtained with a power supply of  $V_{CC} = 3.3V \pm 0.3V$  and a load capacitance at 30pF.

Devices are shipped from the factory with the memory content erased (to FFh).