M29W008T
M29W008B

8 Mbit (1Mb x8, Block Erase)
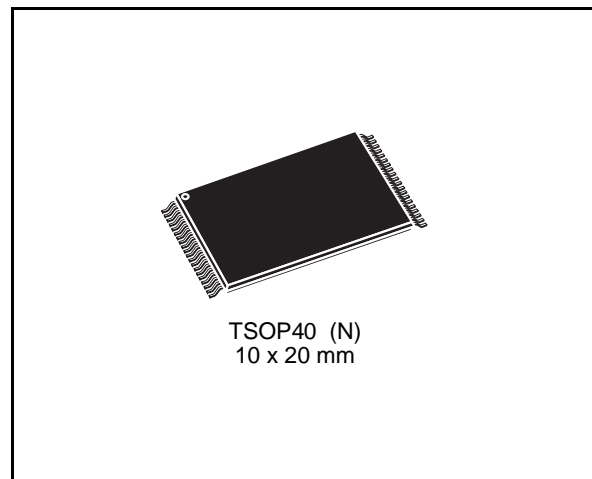## Low Voltage Single Supply Flash Memory

DATA BRIEFING

- 2.7V to 3.6V SUPPLY VOLTAGE for PROGRAM, ERASE and READ OPERATIONS
- FAST ACCESS TIME: 100ns
- FAST PROGRAMMING TIME: 10µs typical
- PROGRAM/ERASE CONTROLLER (P/E.C.)
  - Program Byte-by-Byte
  - Status Register bits and Ready/Busy Output
- MEMORY BLOCKS
  - Boot Block (Top or Bottom location)
  - Parameter and Main blocks
- BLOCK, MULTI-BLOCK and CHIP ERASE
- MULTI BLOCK PROTECTION/TEMPORARY UNPROTECTION MODES
- ERASE SUSPEND and RESUME MODES
  - Read and Program another Block during Erase Suspend
- LOW POWER CONSUMPTION
  - Stand-by and Automatic Stand-by
- 100,000 PROGRAM/ERASE CYCLES per BLOCK
- 20 YEARS DATA RETENTION
  - Defectivity below 1ppm/year
- ELECTRONIC SIGNATURE
  - Manufacturer Code: 20h
  - Device Code, M29W008T: D2h
  - Device Code, M29W008B: DCh

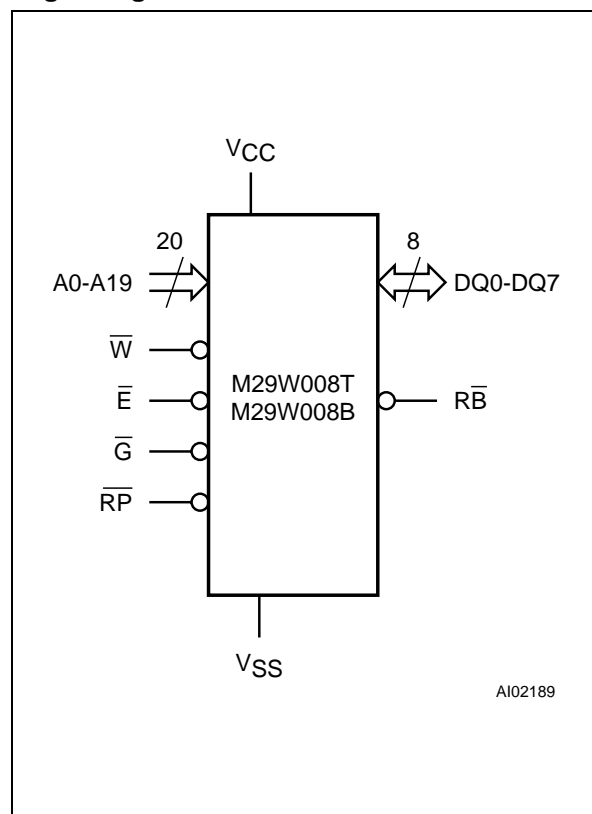TSOP40 (N)
10 x 20 mm

Logic Diagram

DESCRIPTION

The M29W008 is a non-volatile memory that may be erased electrically at the block or chip level and programmed in-system on a Byte-by-Byte basis using only a single 2.7V to 3.6V V_{CC} supply. For Program and Erase operations the necessary high voltages are generated internally. The device can also be programmed in standard programmers.

The array matrix organisation allows each block to be erased and reprogrammed without affecting other blocks. Blocks can be protected against programing and erase on programming equipment, and temporarily unprotected to make changes in the application. Each block can be programmed and erased over 100,000 cycles.
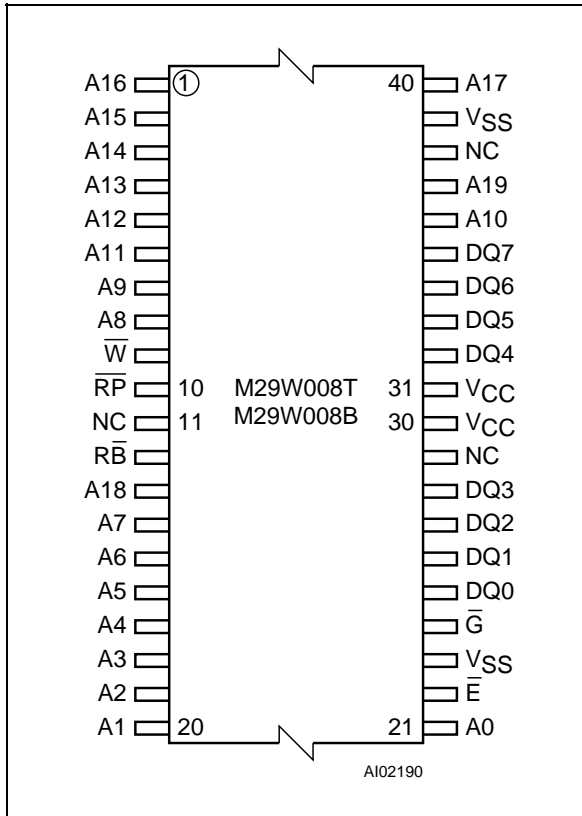
TSOP Pin Connections

AI02190

Warning: NC = Not Connected.

Signal Names

A0-A19	Address Inputs
DQ0-DQ7	Data Input/Outputs, Command Inputs
$\overline{E}$	Chip Enable
$\overline{G}$	Output Enable
$\overline{W}$	Write Enable
$\overline{RP}$	Reset / Block Temporary Unprotect
$R\overline{B}$	Ready/Busy Output
V_{CC}	Supply Voltage
V_{SS}	Ground

Ordering Information Scheme

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

Example: M29W008T -90 N 1 TR

Operating Voltage

W   2.7V to 3.6V

Array Matrix

T   Top Boot

B   Bottom Boot

Speed

-90   90ns

-100 100ns

-120 120ns

-150 150ns

Package

N   TSOP40
    10 x 20mm

Temp. Range

1   0 to 70 °C

5   −20 to 85 °C

6   −40 to 85 °C

Option

TR   Tape & Reel
     Packing

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