



M29W116BT M29W116BB

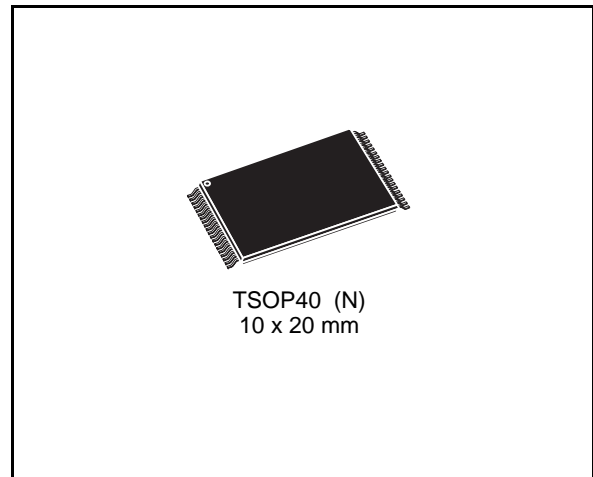
16 Mbit (2Mb x8, Boot Block) Low Voltage Single Supply Flash Memory

DATA BRIEFING

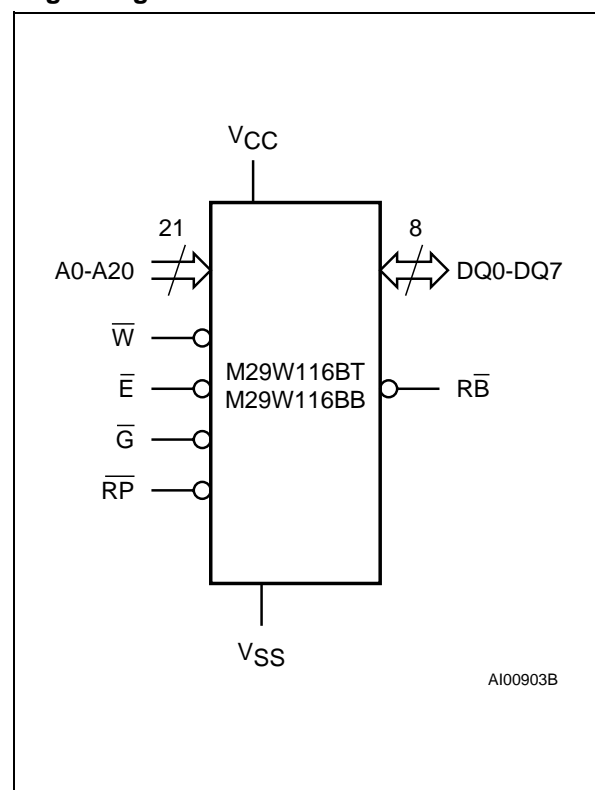
- 2.7V to 3.6V SUPPLY VOLTAGE for PROGRAM, ERASE and READ OPERATIONS
- FAST ACCESS TIME: 80ns
- FAST PROGRAMMING TIME: 13µs typical
- PROGRAM/ERASE CONTROLLER (P/E.C.)
 - Program Byte-by-Byte
 - Status Register bits and Ready/Busy Output
- MEMORY BLOCK for SECURITY CODE
- MEMORY BLOCKS
 - Boot Block (Top or Bottom location)
 - Parameter and Main blocks
- BLOCK, MULTI-BLOCK and CHIP ERASE
- MULTI BLOCK PROTECTION/TEMPORARY UNPROTECTION MODES
- BLOCK PROTECTION ACCESS COMMAND
- ERASE SUSPEND and RESUME MODES
 - Read and Program another Block during Erase Suspend
- BYPASS MODE
 - Faster Programming Sequences
- 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, M29W116BT: C7h
 - Device Code, M29W116BB: 4Ch

DESCRIPTION

The M29W116B 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.

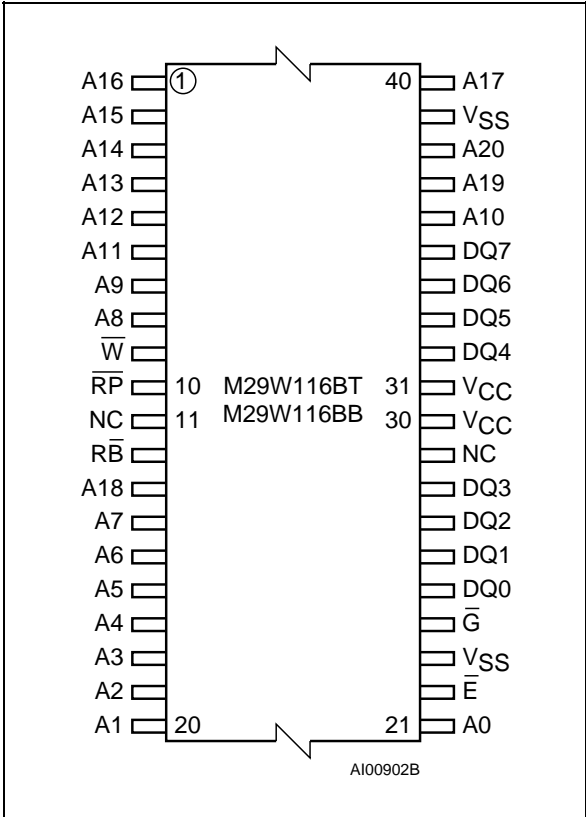


Logic Diagram



M29W116BT, M29W116BB

TSOP Pin Connections



Warning: NC = Not Connected.

Signal Names

A0-A20	Address Inputs
DQ0-DQ7	Data Input/Outputs, Command Inputs
E	Chip Enable
G	Output Enable
W	Write Enable
RP	Reset / Block Temporary Unprotect
RB	Ready/Busy Output
VCC	Supply Voltage
VSS	Ground

Ordering Information Scheme

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

Example: M29W116BT 90 N 1 T

Operating Voltage
W 2.7V to 3.6V

Array Matrix
T Top Boot
B Bottom Boot

Speed
-80⁽¹⁾ 80ns
-90 90ns
-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
T Tape & Reel
Packing

Note: 1. This speed is obtained with VCC = 3.0V to 3.6V and a load capacitor of 30pF.

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