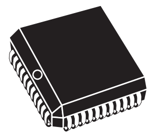
M29F102BB

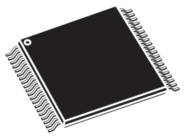
1 Mbit (64Kb x16, Boot Block) Single Supply Flash Memory

DATA BRIEFING

- 5V±10% SUPPLY VOLTAGE for PROGRAM, ERASE and READ OPERATIONS
- FAST ACCESS TIME: 35ns
- FAST PROGRAMMING TIME: 10µs typical
- PROGRAM/ERASE CONTROLLER (P/E.C.)
  - Program Word-by-Word
  - Status Register bits
- MEMORY BLOCKS
  - Boot Block (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
- BYPASS MODE
  - Faster Programming Sequences
- LOW POWER CONSUMPTION
  - Stand-by and Automatic Stand-by
- 100,000 PROGRAM/ERASE CYCLES per BLOCK
- M28F102 COMPATIBLE
  - Pin-out and Read Mode
- 20 YEARS DATA RETENTION
  - Defectivity below 1ppm/year
- ELECTRONIC SIGNATURE
  - Manufacturer Code: 0020h
  - Device Code: 0097h



PLCC44 (K)

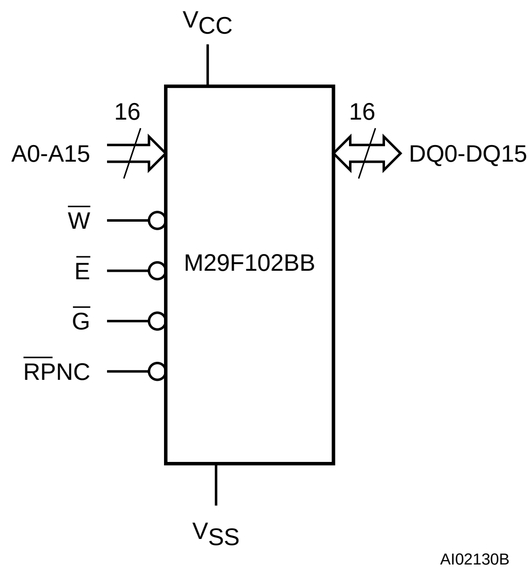


TSOP40 (N)
10 x 14mm

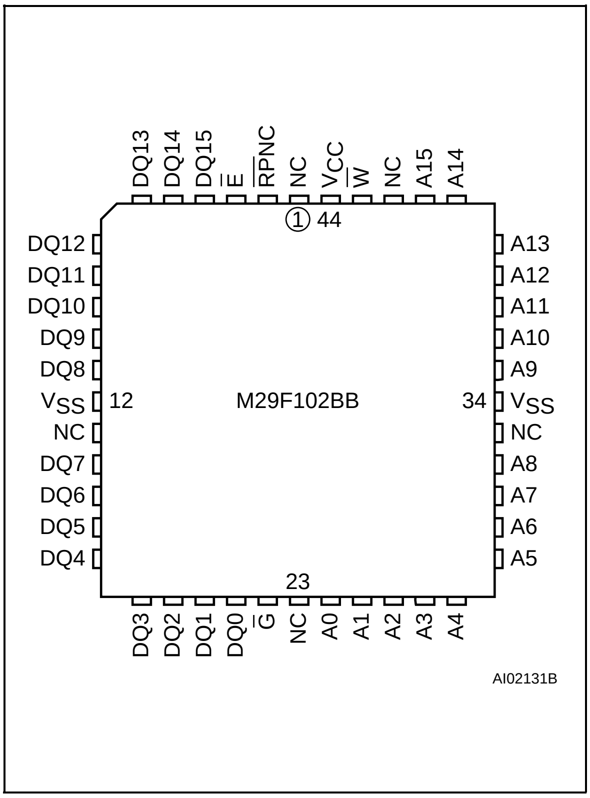
DESCRIPTION

The M29F102BB is a non-volatile memory that may be erased electrically at the block or chip level and programmed in-system on a Word-by-Word basis using only a single 5V 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

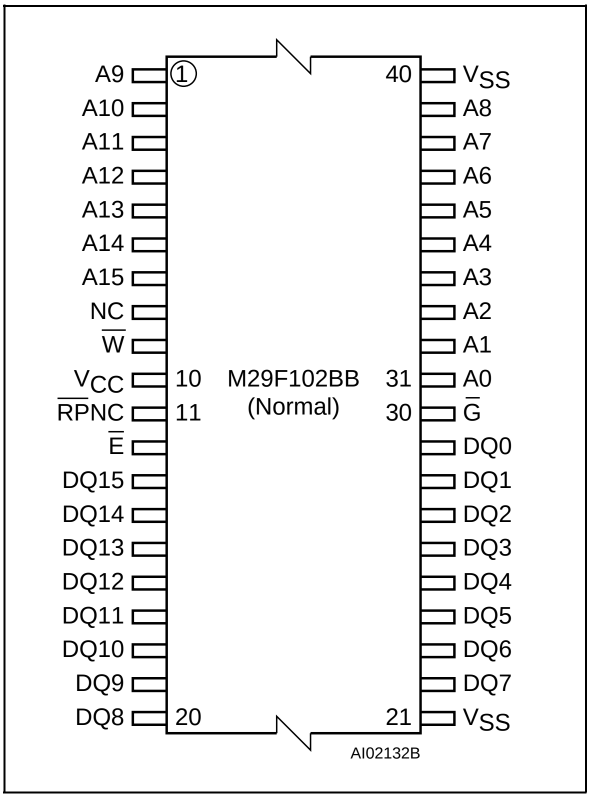


LCC Pin Connections



Warning: NC = Not Connected.

TSOP Pin Connections

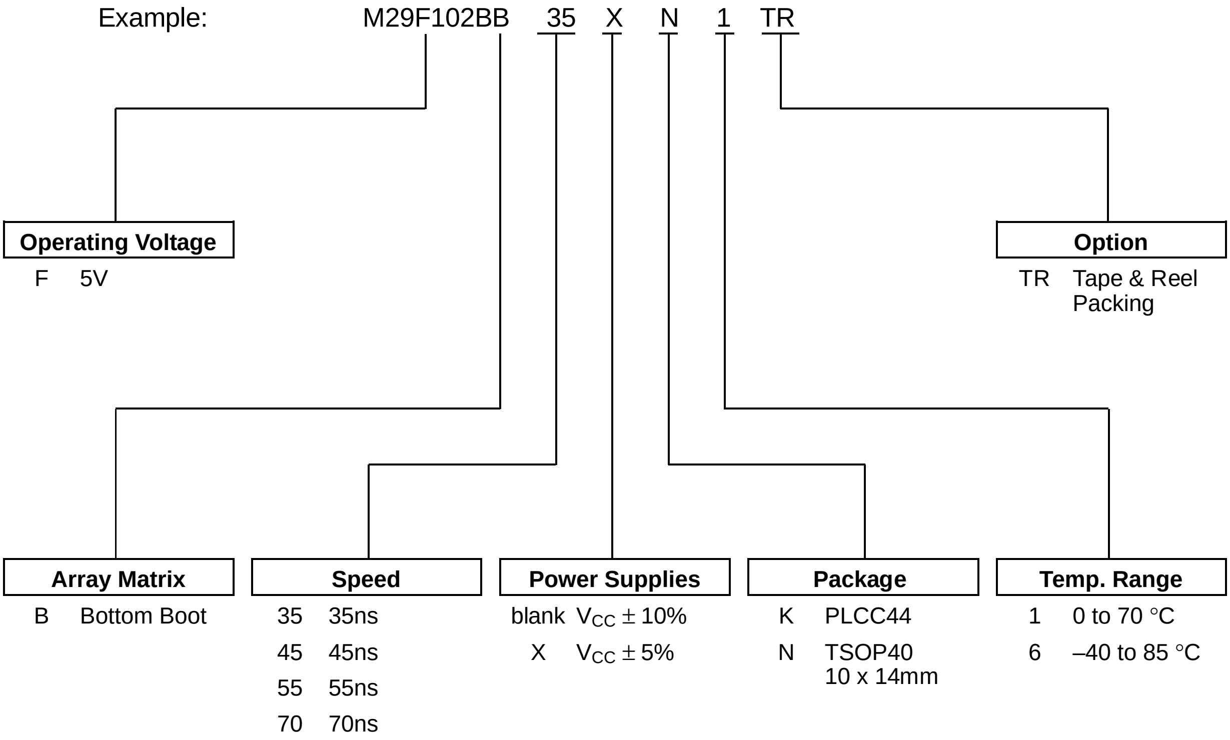


Warning: NC = Not Connected.

Signal Names

A0-A15	Address Inputs
DQ0-DQ7	Data Input/Outputs, Command Inputs
DQ8-DQ15	Data Input/Outputs
$\overline{E}$	Chip Enable
$\overline{G}$	Output Enable
$\overline{W}$	Write Enable
$\overline{RP}$NC	Reset / Block Temporary Unprotect
V_{CC}	Supply Voltage
V_{SS}	Ground

ORDERING INFORMATION SCHEME



Example: M29F102BB 35 X N 1 TR

Operating Voltage

F	5V

Array Matrix

B	Bottom Boot

Speed

35	35ns
45	45ns
55	55ns
70	70ns

Power Supplies

blank	V_{CC} ± 10%
X	V_{CC} ± 5%

Package

K	PLCC44
N	TSOP40 10 x 14mm

Temp. Range

1	0 to 70 °C
6	–40 to 85 °C

Option

TR	Tape & Reel Packing

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

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