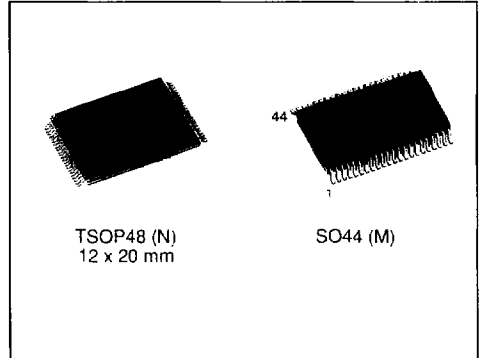


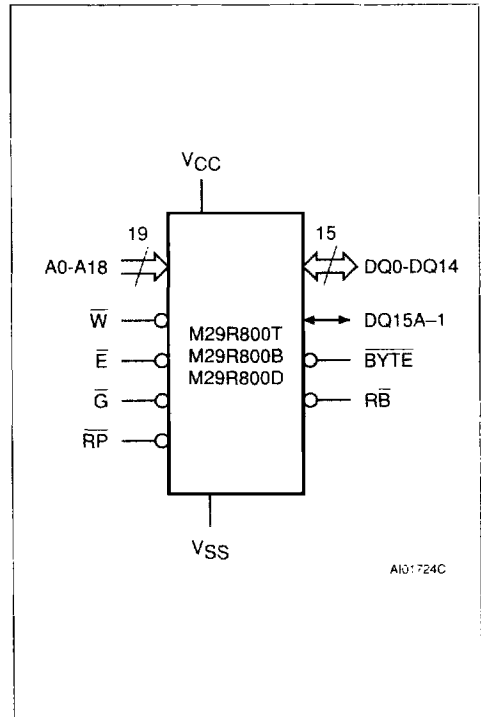
8 Mb (x8/x16, Block Erase)
LOW VOLTAGE SINGLE SUPPLY FLASH MEMORY

DATA BRIEFING

- **SUPPLY VOLTAGE**
 - 1.8V to 3.6V for READ OPERATION
 - 2.7V to 3.6V for PROGRAM and ERASE OPERATIONS
- **FAST ACCESS TIME: 100ns**
- **FAST PROGRAMMING TIME**
 - 10µs by Byte / 16µs by Word typical
- **PROGRAM/ERASE CONTROLLER (P/E.C.)**
 - Program Byte-by-Byte / Word-by-Word
 - Status Register bits and Ready/Busy Output
- **MEMORY BLOCKS**
 - Boot Blocks (Top, Bottom or Dual locations)
 - Parameter and Main Blocks
- **BLOCK, MULTI-BLOCK and CHIP ERASE**
- **MULTI BLOCK PROTECTION/TEMPORARY UNPROTECTION**
- **ERASE SUSPEND and RESUME MODES**
 - Read and Program another Block during Erase Suspend
- **SECURITY PROTECTION MEMORY AREA**
- **LOW POWER CONSUMPTION**
 - Stand-by and Automatic Stand-by
- **100,000 PROGRAM/ERASE CYCLES per BLOCK**
- **ELECTRONIC SIGNATURE**
 - Manufacturer Code: 0020h
 - Device Code, Top Boot Block: 00D8h
 - Device Code, Bottom Boot Block: 00D9h
 - Device Code, Dual Boot Block: 00DDh

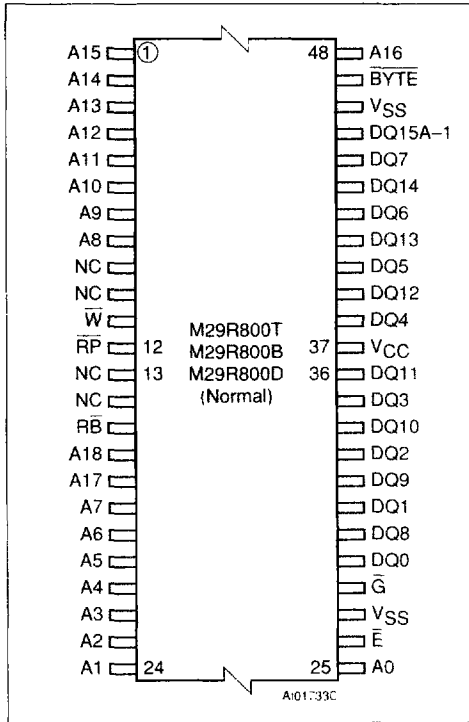


Logic Diagram



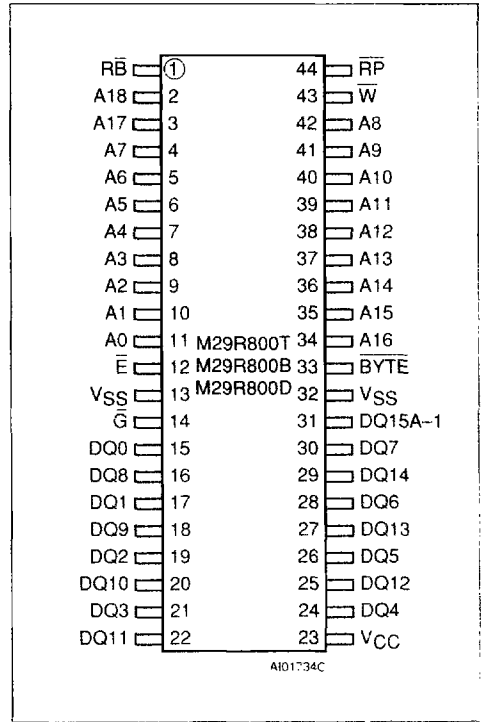
M29R800T, M29R800B, M29R800D

TSOP Pin Connections



Warning: NC = Not Connected.

SO Pin Connections



Signal Names

A0-A18	Address Inputs
DQ0-DQ7	Data Input/Output, Command Inputs
DQ8-DQ14	Data Input/Output
DQ15A-1	Data Input/Output or Address Input
\bar{E}	Chip Enable
\bar{G}	Output Enable
\bar{W}	Write Enable
\bar{RP}	Reset / Block Temporary Unprotect
\bar{RB}	Ready/Busy Output
BYTE	Byte/Word Organisation
V _{CC}	Supply Voltage
V _{SS}	Ground

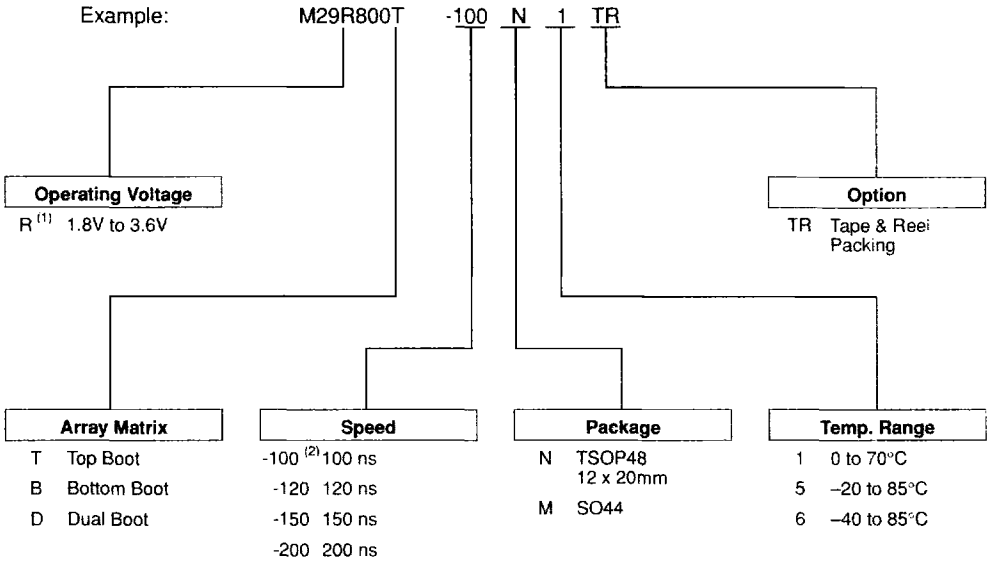
DESCRIPTION

The M29R800 is a non-volatile memory that may be erased electrically at the block level and programmed in system on a Byte-by-Byte or Word-by-Word basis using only the 3.0V V_{CC} supply. The device can also be programmed in standard programmers. The array matrix allows each block to be erased and reprogrammed without affecting the other blocks. The memory features single voltage operations from 2.7V to 3.6V for Read. Program and Erase, and read capability down to 1.8V.

Commands are written to the Command Interface using standard microprocessor write timings. For Program and Erase operation the necessary High Voltages are generated internally. Once a Program or Erase operation has been completed, the device automatically resets to the Read Array mode. The M29R800 electrically erases the entire chip or one or more blocks simultaneously and programs by Byte or Word.

The device is offered in the TSOP48 (12 x 20mm) and SO44 packages.

ORDERING INFORMATION SCHEME



Notes: 1. This supply voltage range is offered for a speed of 200ns only.
 2. This speed is obtained with load capacitance at 30pF.

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

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