

4 Mb (512K x 8, Block Erase) SINGLE SUPPLY FLASH MEMORY

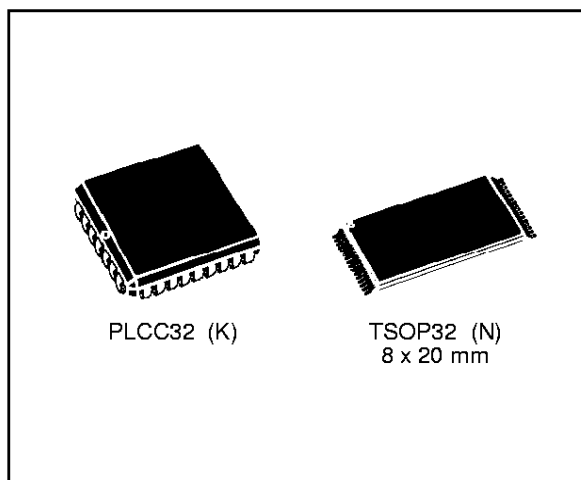
DATA BRIEFING

- 5V $\pm$ 10% SUPPLY VOLTAGE for PROGRAM/ERASE and READ OPERATIONS
- FAST ACCESS TIME: 70ns
- BYTE PROGRAMMING TIME: 10 μ s typical
- ERASE TIME
 - Block: 1.0 sec typical
 - Chip: 2.5 sec typical
- PROGRAM/ERASE CONTROLLER (P/E.C.)
 - Program Byte-by-Byte
 - Data Polling and Toggle bits Protocol for P/E.C. Status
- MEMORY ERASE in BLOCKS
 - 8 Blocks of 64K Bytes each
 - Block Protection
 - Multiblock Erase
- ERASE SUSPEND and RESUME MODES
- LOW POWER CONSUMPTION
 - Read mode: 8mA typical (@ 12MHz)
 - Stand-by mode: 25 μ A typical
 - Automatic Stand-by mode
- 100,000 PROGRAM/ERASE CYCLES per BLOCK
- ELECTRONIC SIGNATURE
 - Manufacturer Code: 20h
 - Device Code: E2h

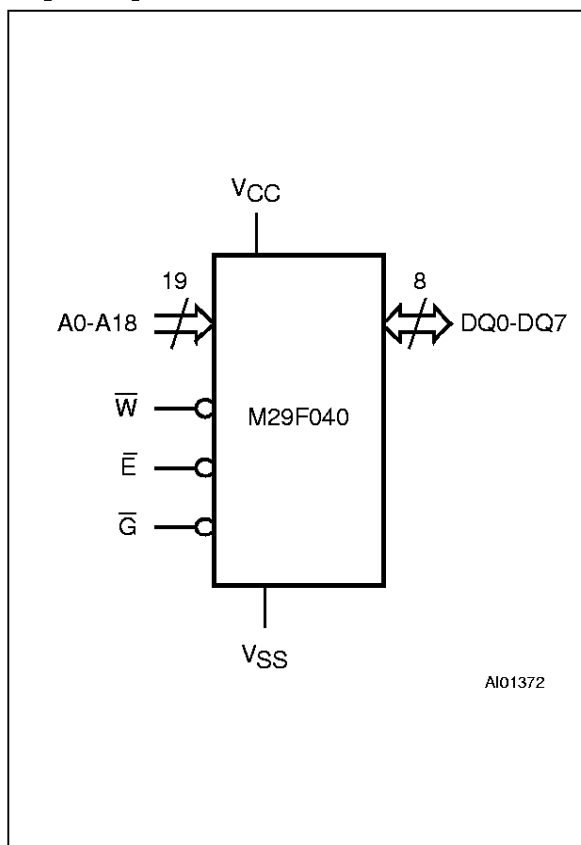
DESCRIPTION

The M29F040 is a non-volatile memory that may be erased electrically at the block level, and programmed Byte-by-Byte.

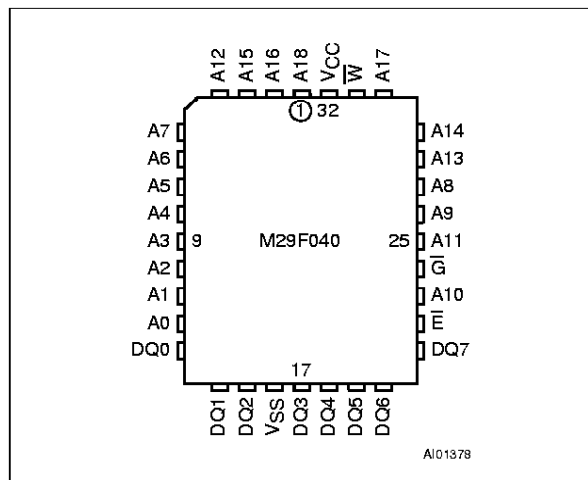
The interface is directly compatible with most microprocessors. PLCC32 and TSOP32 (8 x 20mm) packages are available. Both normal and reverse pin outs are available for the TSOP32 package.



Logic Diagram



LCC Pin Connections



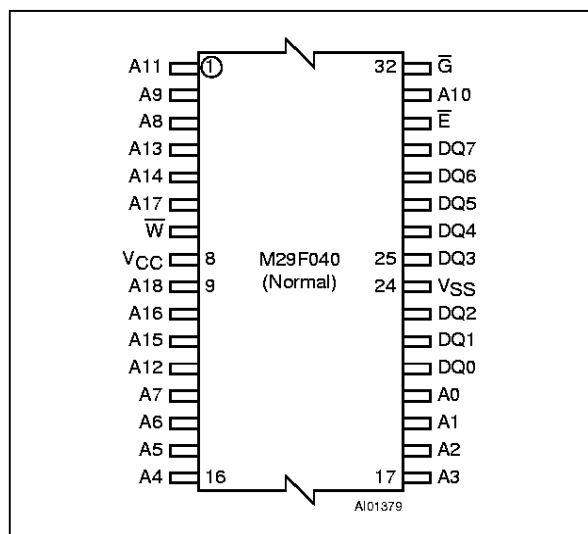
Signal Names

A0-A18	Address Inputs
DQ0-DQ7	Data Input / Outputs
$\overline{E}$	Chip Enable
$\overline{G}$	Output Enable
$\overline{W}$	Write Enable
V _{CC}	Supply Voltage
V _{SS}	Ground

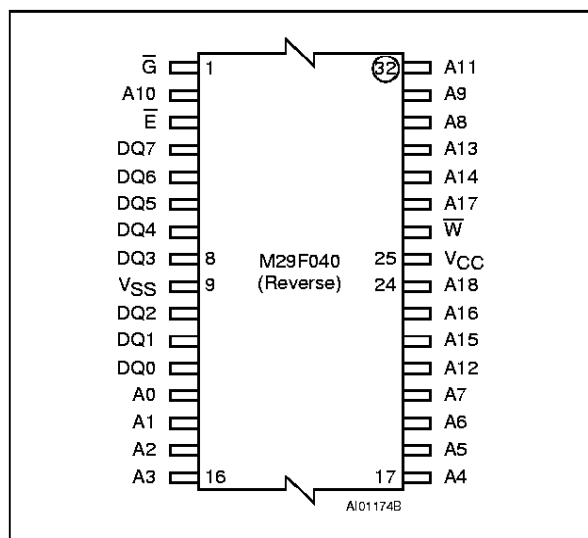
Ordering Information Scheme

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.

TSOP Pin Connections



TSOP Reverse Pin Connections



Example: M29F040 -70 X N 1 TR

Operating Voltage

F 5V

Speed

-70	70ns
-90	90ns
-120	120ns
-150	150ns

Power Supplies

blank V_{CC} ± 10%
X V_{CC} ± 5%

Package

K PLCC32
N TSOP32
8 x 20mm

Temp. Range

1	0 to 70 °C
3	-40 to 125 °C
5	-20 to 85 °C
6	-40 to 85 °C

Option

R Reverse Pinout
TR Tape & Reel Packing

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