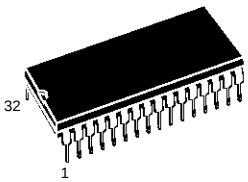
SGS-THOMSON MICROELECTRONICS

M28F101

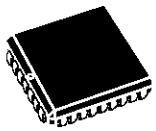
1 Megabit (128K x 8, Chip Erase) FLASH MEMORY

DATA BRIEFING

- FAST ACCESS TIME: 70ns
- LOW POWER CONSUMPTION
  - Standby Current: 100µA Max
- 10,000 ERASE/PROGRAM CYCLES
- 12V PROGRAMMING VOLTAGE
- TYPICAL BYTE PROGRAMING TIME 10µs (PRESTO F ALGORITHM)
- ELECTRICAL CHIP ERASE in 1s RANGE
- INTEGRATED ERASE/PROGRAM-STOP TIMER
- OTP COMPATIBLE PACKAGES and PINOUTS
- EXTENDED TEMPERATURE RANGES



PDIP32 (P)



PLCC32 (K)

TSOP32 (N)
8 x 20 mm

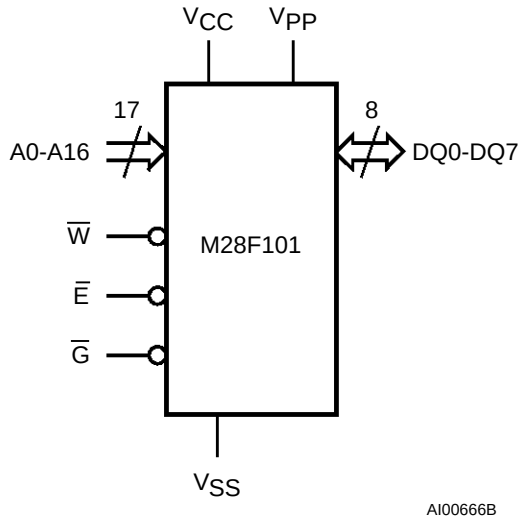
DESCRIPTION

The M28F101 FLASH Memory is a non-volatile memory which may be erased electrically at the chip level and programmed byte-by-byte. It is organised as 128K bytes of 8 bits. It uses a command register architecture to select the operating modes and thus provides a simple microprocessor interface. The M28F101 FLASH Memory is suitable for applications where the memory has to be reprogrammed in the equipment. The access time of 100ns makes the device suitable for use in high speed microprocessor systems.

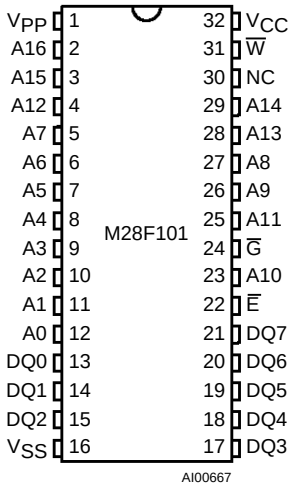
Signal Names

A0 - A16	Address Inputs
DQ0 - DQ7	Data Inputs / Outputs
$\overline{E}$	Chip Enable
$\overline{G}$	Output Enable
$\overline{W}$	Write Enable
V_{PP}	Program Supply
V_{CC}	Supply Voltage
V_{SS}	Ground

Logic Diagram

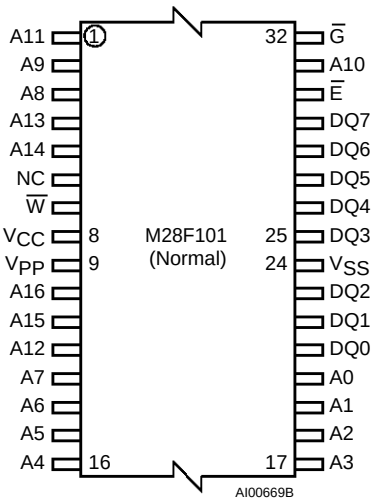


DIP Pin Connections



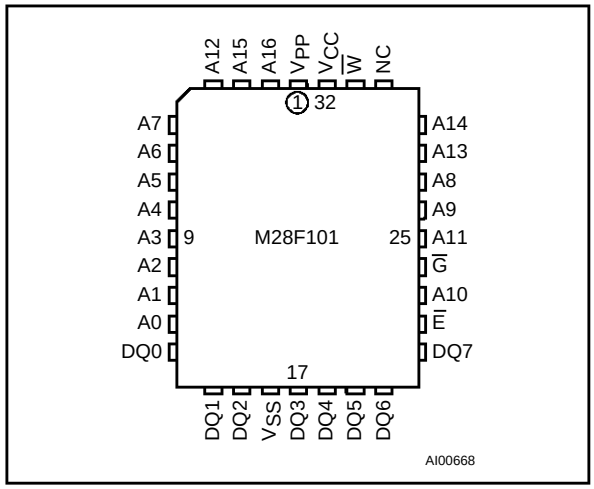
Warning: NC = Not Connected

TSOP Pin Connections



Warning: NC = Not Connected

LCC Pin Connections



Warning: NC = Not Connected

Ordering Information Scheme

For a list of available options refer to the current Memory Shortform catalogue.
For further information on any aspect of this device, please contact the SGS-THOMSON Sales Office nearest to you.

Example: M28F101 -70 X N 1 TR

Operating Voltage
F 5V

Speed
-70 70ns
-90 90ns
-100 100ns
-120 120ns
-150 150ns
-200 2000ns

Power Supplies
blank $V_{CC} \pm 10\%$
X $V_{CC} \pm 5\%$

Package
P PDIP32
K PLCC32
N TSOP32
8 x 20mm

Temp. Range
1 0 to 70 °C
3 –40 to 125 °C
6 –40 to 85 °C

Option
R Reverse Pinout
TR Tape & Reel Packing