

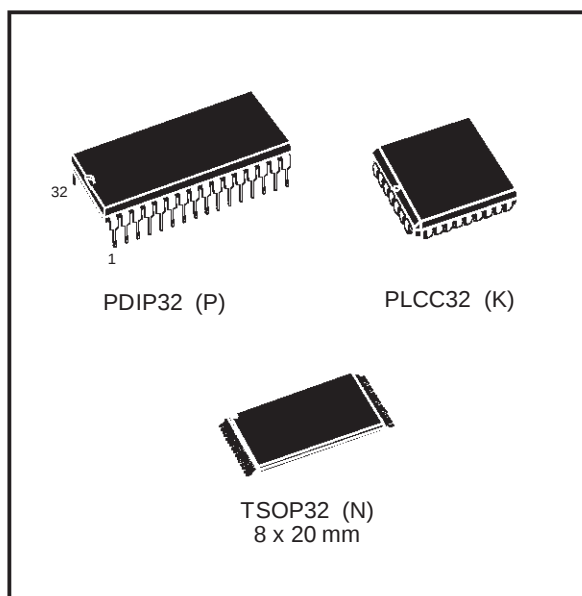


M28F101

1 Mbit (128Kb x8, Bulk) Flash Memory

DATA BRIEFING

- 5V $\pm 10\%$ SUPPLY VOLTAGE
- 12V PROGRAMMING VOLTAGE
- FAST ACCESS TIME: 70ns
- BYTE PROGRAMING TIME: 10 μ s typical
- ELECTRICAL CHIP ERASE in 1s RANGE
- LOW POWER CONSUMPTION
 - Stand-by Current: 5 μ A typical
- 10,000 ERASE/PROGRAM CYCLES
- INTEGRATED ERASE/PROGRAM-STOP TIMER
- OTP COMPATIBLE PACKAGES and PINOUTS
- 20 YEARS DATA RETENTION
 - Defectivity below 1ppm/year
- ELECTRONIC SIGNATURE
 - Manufacturer Code: 20h
 - Device Code: 07h



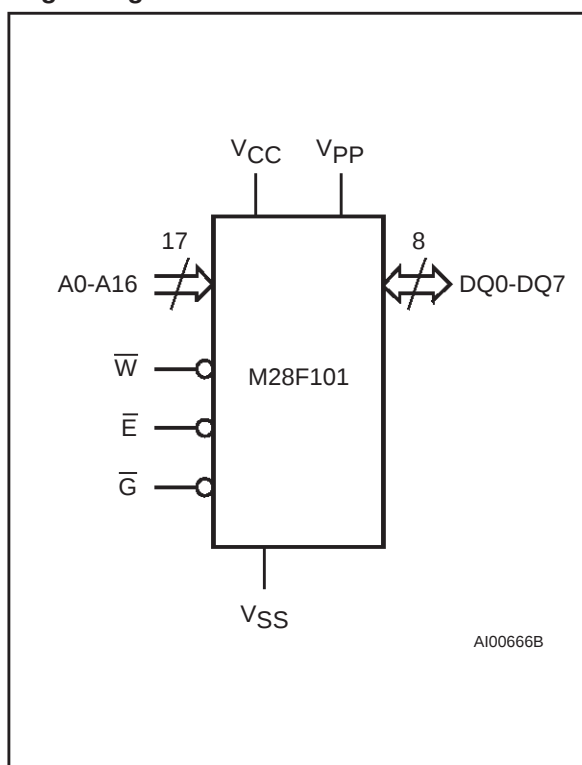
DESCRIPTION

The M28F101 Flash memory is a non-volatile memory that may be erased electrically at the chip level and programmed by byte. It is organised as 128 Kbytes of 8 bits. It uses a command register architecture to select the operating modes and thus provides a simple microprocessor interface. The device is offered in PDIP32, PLCC32 and TSOP32 (8 x 20mm) packages. Both normal and reverse pinouts are available for the TSOP32 package.

Signal Names

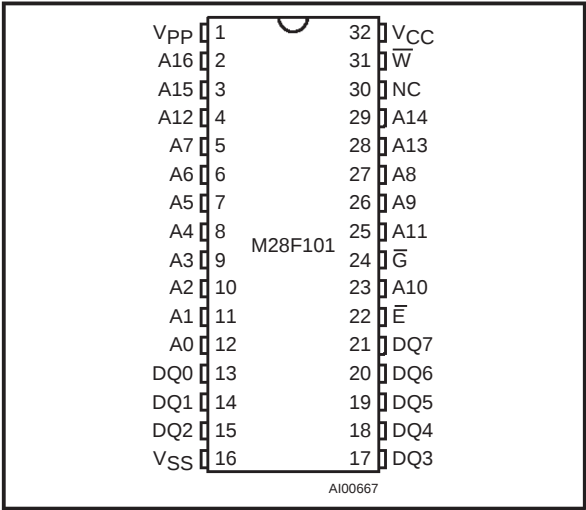
A0-A16	Address Inputs
DQ0-DQ7	Data Inputs / Outputs
$\bar{E}$	Chip Enable
$\bar{G}$	Output Enable
$\bar{W}$	Write Enable
V _{PP}	Program Supply
V _{CC}	Supply Voltage
V _{SS}	Ground

Logic Diagram



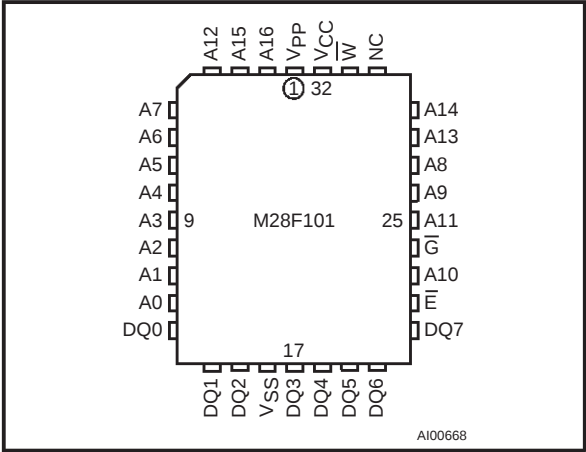
M28F101

DIP Pin Connections



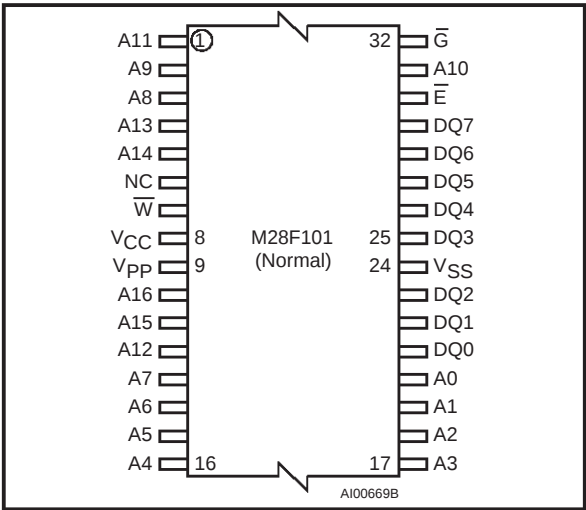
Warning: NC = Not Connected.

LCC Pin Connections



Warning: NC = Not Connected.

TSOP Pin Connections



Warning: NC = Not Connected.

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: M28F101 -70 X N 1 TR

Operating Voltage

F 5V

Speed

-70 70ns

-90 90ns

-100 100ns

-120 120ns

-150 150ns

-200 200ns

Power Supplies

blank VCC ± 10%

X VCC ± 5%

Package

P PDIP32

K PLCC32

N TSOP32
8 x 20mm

Temp. Range

1 0 to 70 °C

6 -40 to 85 °C

3 -40 to 125 °C

Option

R Reverse
Pinout

TR Tape & Reel
Packing

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