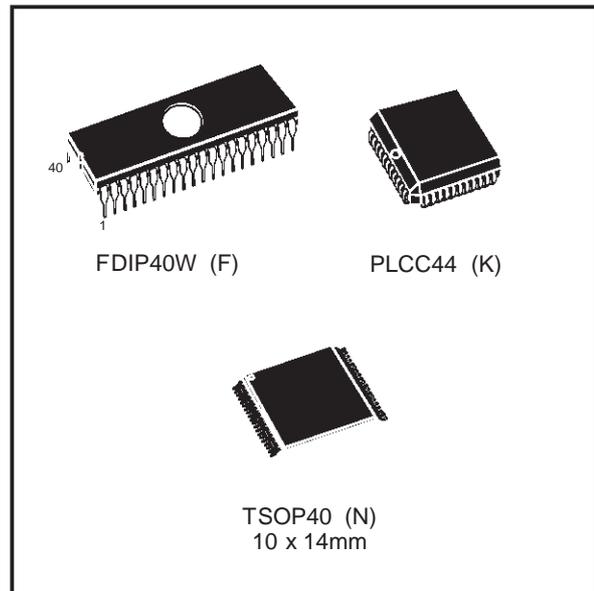


## 1 Mbit (64Kb x 16) Low Voltage UV EPROM and OTP EPROM

### DATA BRIEFING

- **LOW VOLTAGE READ OPERATION:**  
2.7V to 3.6V
- **FAST ACCESS TIME:**
  - 70ns at  $V_{CC} = 3.0V$  to 3.6V
  - 80ns at  $V_{CC} = 2.7V$  to 3.6V
- **LOW POWER CONSUMPTION:**
  - Active Current 15mA
  - Standby Current 20 $\mu$ A
- **PROGRAMMING VOLTAGE:** 12.75V  $\pm$  0.25V
- **PROGRAMMING TIME** of AROUND 6 sec.  
(PRESTO II Algorithm)
- **ELECTRONIC SIGNATURE**
  - Manufacturer Code: 0020h
  - Device Code: 008Ch



### DESCRIPTION

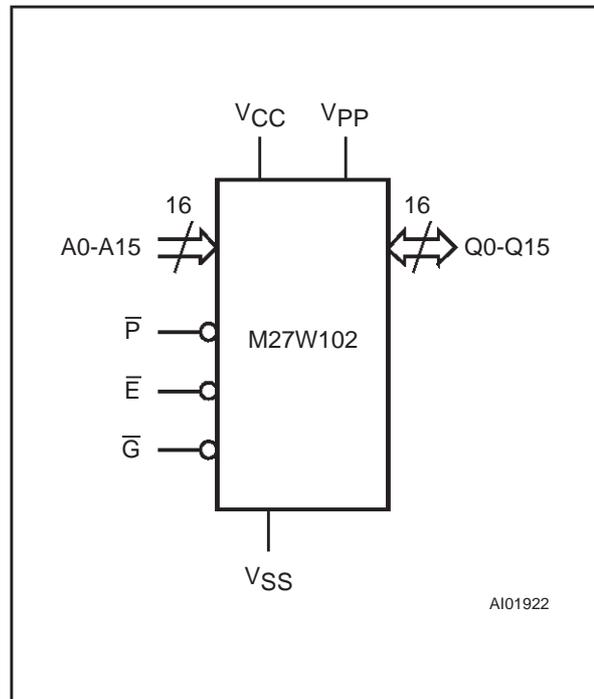
The M27W102 is a low voltage 1 Mbit EPROM offered in the two ranges UV (ultra violet erase) and OTP (one time programmable). It is ideally suited for microprocessor systems requiring large data or program storage and is organized as 65,536 words by 16 bits.

The M27W102 operates in the read mode with a supply voltage as low as 2.7V at  $-40$  to  $85^{\circ}C$  temperature range. The decrease in operating power allows either a reduction of the size of the battery or an increase in the time between battery recharges.

The FDIP40W (window ceramic frit-seal package) has a transparent lid which allows the user to expose the chip to ultraviolet light to erase the bit pattern. A new pattern can then be written to the device by following the programming procedure.

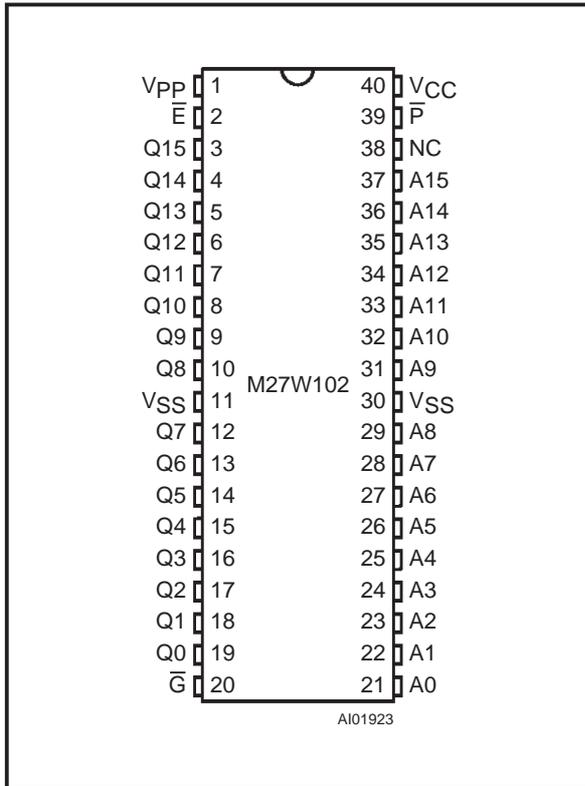
For application where the content is programmed only one time and erasure is not required, the M27W102 is offered in PLCC44 and TSOP40 (10 x 14mm) packages.

### Logic Diagram



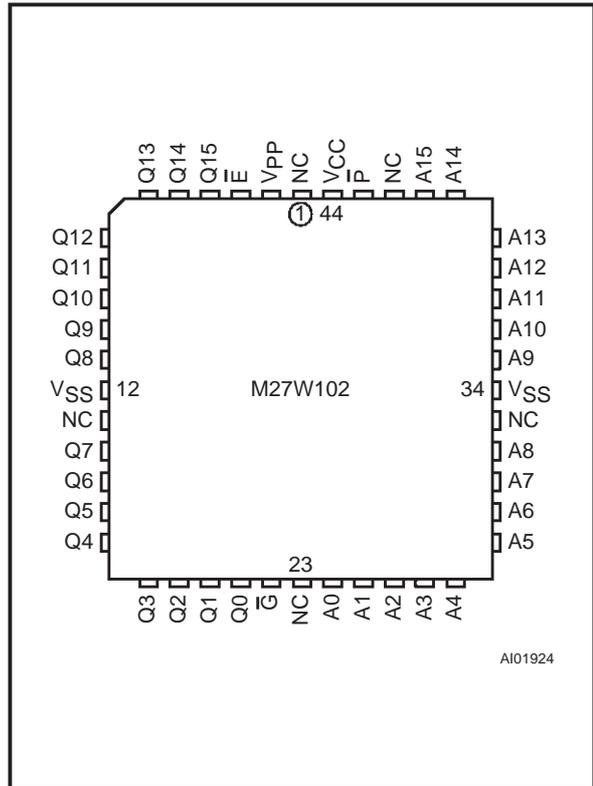
# M27W102

## DIP Pin Connections



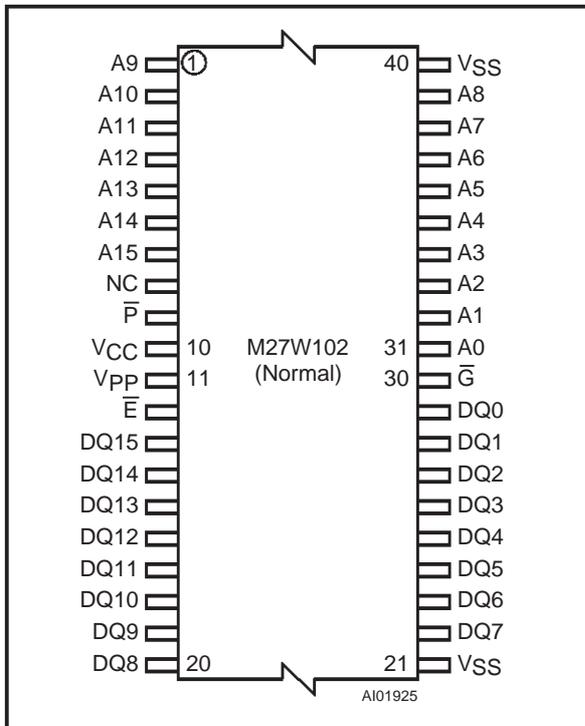
Warning: NC = Not Connected.

## LCC Pin Connections



Warning: NC = Not Connected.

## TSOP Pin Connections



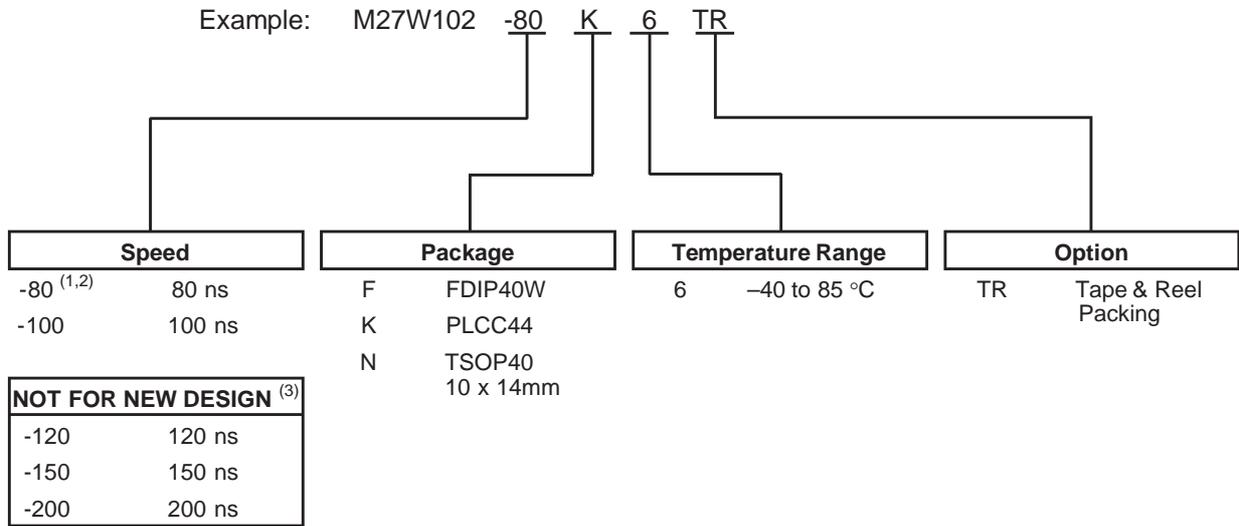
Warning: NC = Not Connected.

## Signal Names

A0-A15	Address Inputs
Q0-Q15	Data Outputs
$\bar{E}$	Chip Enable
$\bar{G}$	Output Enable
$\bar{P}$	Program
V <sub>PP</sub>	Program Supply
V <sub>CC</sub>	Supply Voltage
V <sub>SS</sub>	Ground

**ORDERING INFORMATION SCHEME**

Example: M27W102 -80 K 6 TR



- Notes:**
1. High Speed, see AC Characteristics section for further information.
  2. This speed also guarantees 70ns access time at V<sub>CC</sub> = 3.0V to 3.6V (M27V102)
  3. These speeds are replaced by the 100ns.

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.