



M27V160

16 Mbit (2Mb x8 or 1Mb x16) Low Voltage UV EPROM and OTP EPROM

DATA BRIEFING

- LOW VOLTAGE READ OPERATION:
3V to 3.6V
- FAST ACCESS TIME: 100ns
- BYTE-WIDE or WORD-WIDE
CONFIGURABLE
- 16 Mbit MASK ROM REPLACEMENT
- LOW POWER CONSUMPTION
 - Active Current 30mA at 8MHz
 - Standby Current 20µA
- PROGRAMMING VOLTAGE: 12.5V $\pm$ 0.25V
- PROGRAMMING TIME: 100µs/byte (typical)
- ELECTRONIC SIGNATURE
 - Manufacturer Code: 0020h
 - Device Code: 00B1h

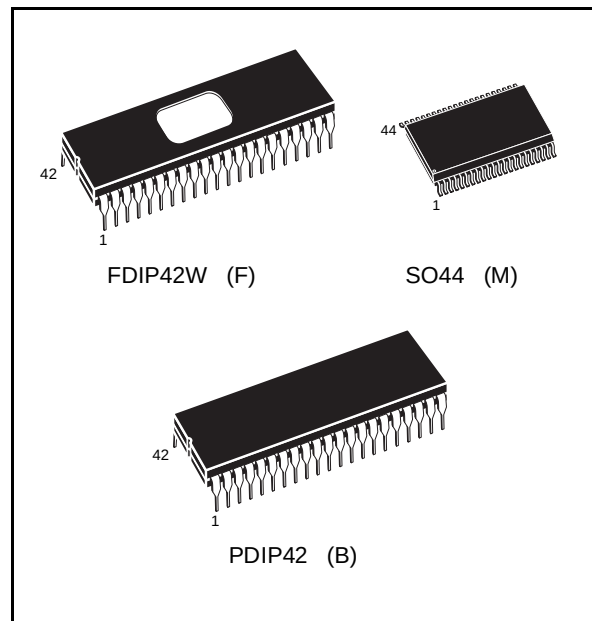
DESCRIPTION

The M27V160 is a low voltage 16 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. It is organised as either 2 Mbit words of 8 bit or 1 Mbit words of 16 bit. The pin-out is compatible with a 16 Mbit Mask ROM.

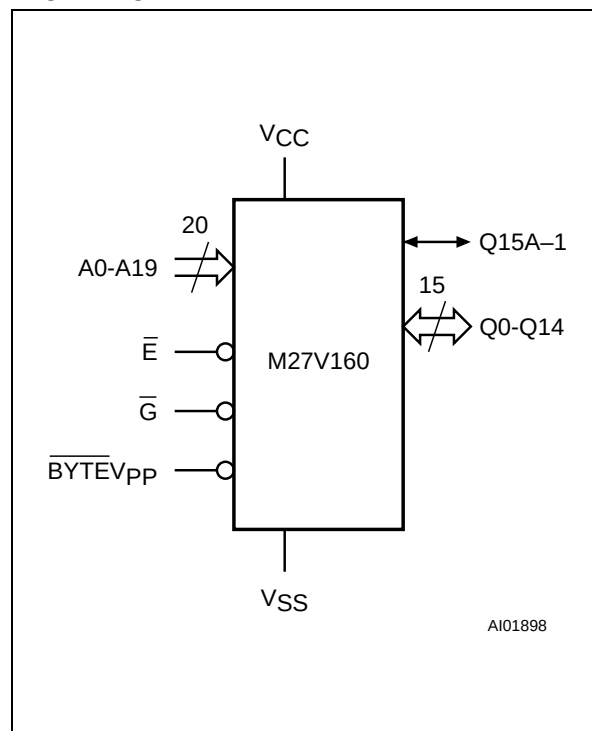
The M27V160 operates in the read mode with a supply voltage as low as 3V. The decrease in operating power allows either a reduction of the size of the battery or an increase in the time between battery recharges.

The FDIP42W (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 rapidly to the device by following the programming procedure.

For applications where the content is programmed only one time and erasure is not required, the M27V160 is offered in PDIP42 and SO44 packages.

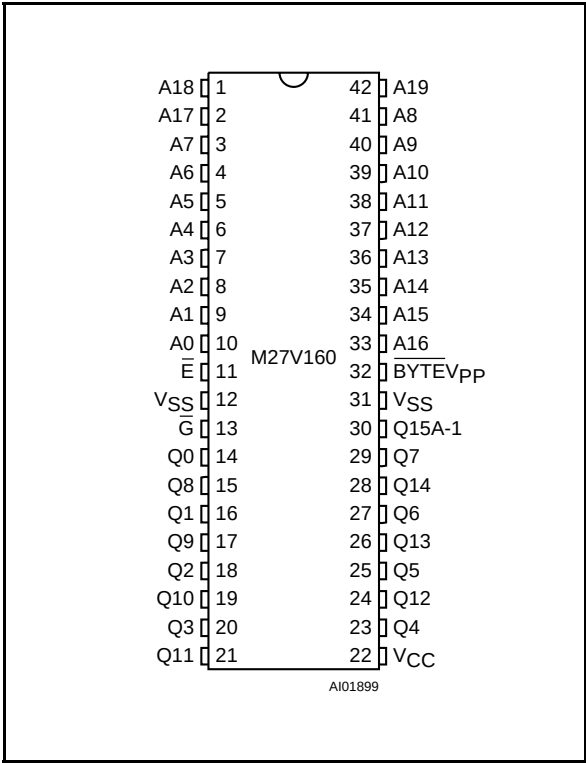


Logic Diagram

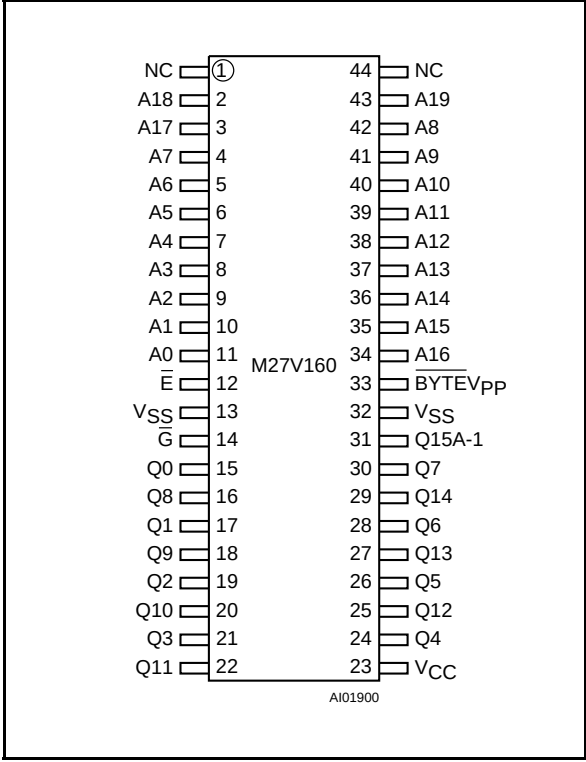


M27V160

DIP Pin Connections



SO Pin Connections



Warning: NC = Not Connected.

Signal Names

A0-A19	Address Inputs
Q0-Q7	Data Outputs
Q8-Q14	Data Outputs
Q15A-1	Data Output / Address Input
$\overline{E}$	Chip Enable
$\overline{G}$	Output Enable
BYTEV _{pp}	Byte Mode / Program Supply
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 STMicroelectronics Sales Office nearest to you.

Example: M27V160 -100 X M 1 TR

Speed	-100	X	M	1	TR
-100 ⁽¹⁾	110ns				
-120 ⁽¹⁾	120ns				
-150	150ns				
V_{CC} Tolerance	blank	± 10%			
	X	± 5%			
Package	F	FDIP24W			
	B	PDIP42			
	M	SO44			
Temp. Range	1	0 to 70 °C			
Options	TR	Tape & Reel Packing			

Note: 1. Speed obtained with High Speed measurement conditions.