



M27C4002

4 Mbit (256Kb x16) UV EPROM and OTP EPROM

DATA BRIEFING

- 5V ± 10% SUPPLY VOLTAGE in READ OPERATION
- FAST ACCESS TIME: 45ns
- LOW POWER CONSUMPTION:
 - Active Current 70mA at 10MHz
 - Standby Current 100µA
- PROGRAMMING VOLTAGE: 12.75V ± 0.25V
- PROGRAMMING TIME: 100µs/byte (typical)
- ELECTRONIC SIGNATURE
 - Manufacturer Code: 0020h
 - Device Code: 0044h

DESCRIPTION

The M27C4002 is a 4 Mbit EPROM offered in the two ranges UV (ultra violet erase) and OTP (one time programmable). It is ideally suited for micro-processor systems requiring large programs and is organised as 262,144 words of 16 bits.

The FDIP40W (window ceramic frit-seal package) and the JLCC44W (J-lead chip carrier packages) have transparent lids which allow 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 applications where the content is programmed only one time and erasure is not required, the M27C4002 is offered in PDIP40, PLCC44 and TSOP40 (10 x 20 mm) packages.

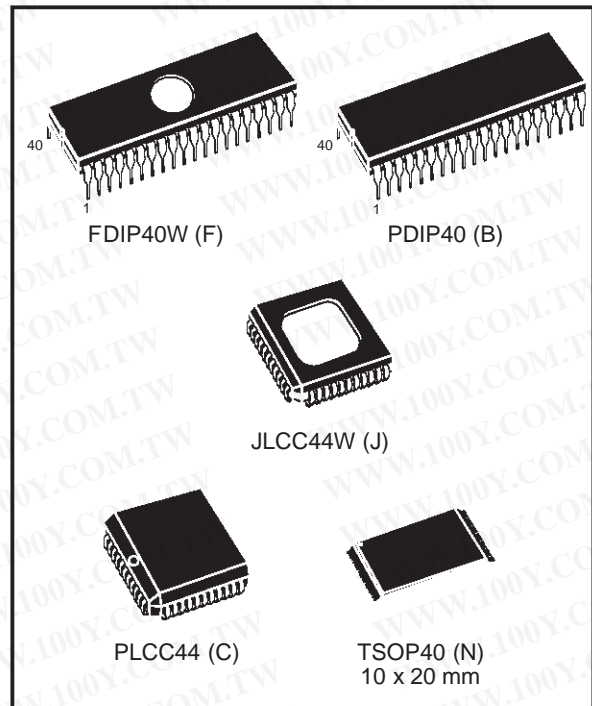
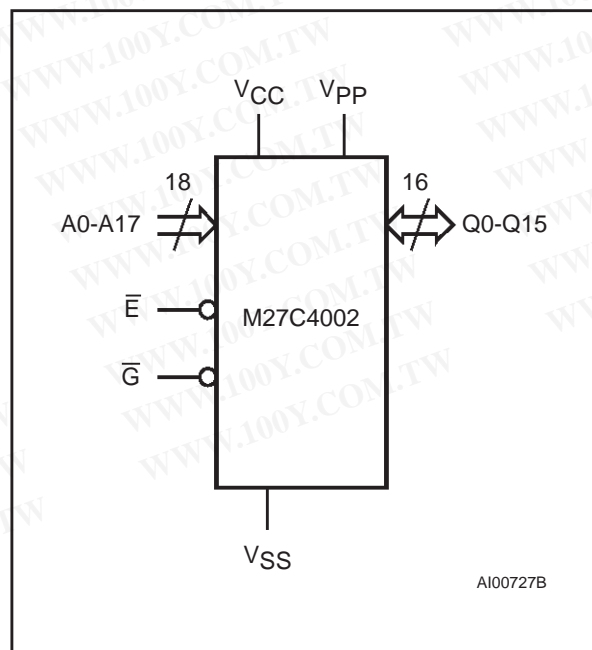
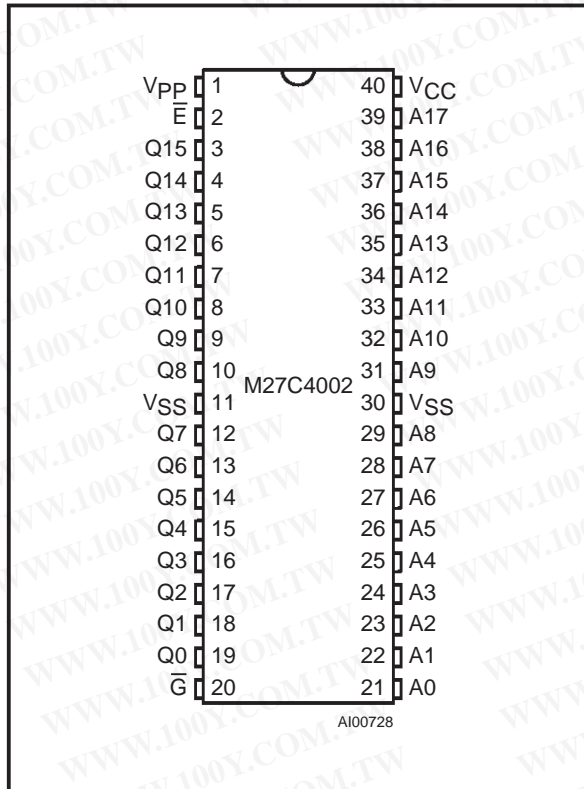


Figure 1. Logic Diagram

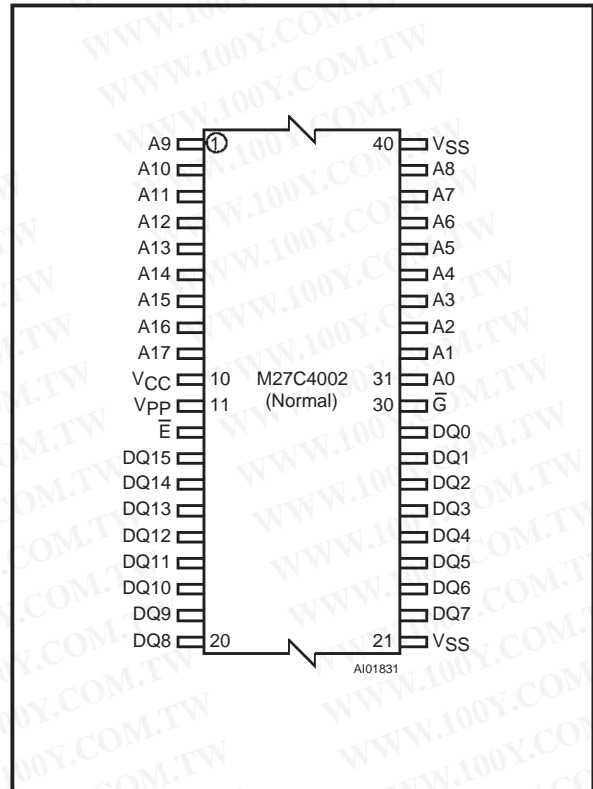


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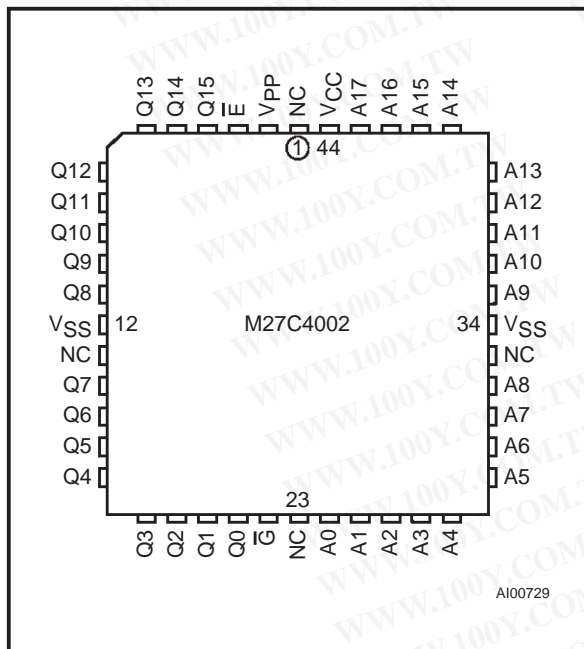
DIP Pin Connections



TSOP Pin Connections



LCC Pin Connections



Warning: NC = Not Connected.

Signal Names

A0-A17	Address Inputs
Q0-Q15	Data Outputs
\bar{E}	Chip Enable
\bar{G}	Output Enable
V _{PP}	Program Supply
V _{CC}	Supply Voltage
V _{SS}	Ground

ORDERING INFORMATION SCHEME

Example: M27C4002 -70 X C 1 X

Speed		V _{CC} Tolerance		Package		Temperature Range		Option	
-45 ⁽¹⁾	45 ns	X	± 5%	F	FDIP40W	1	0 to 70 °C	X	Additional Burn-in
-60 ⁽¹⁾	60 ns	blank	± 10%	B	PDIP40	6	-40 to 85 °C	TR	Tape & Reel Packing
-80	80 ns			J	JLCC44W				
-90	90 ns			C	PLCC44				
-10	100 ns			N	TSOP40				
-12	120 ns				10 x 20mm				
-15	150 ns								
-20	200 ns								

Note: 1. High Speed, see AC Characteristics section for further information.

For a list of available options (Speed, Package etc...) or for further information on any aspect of this device, please contact the STMicroelectronics Sales Office nearest to you.