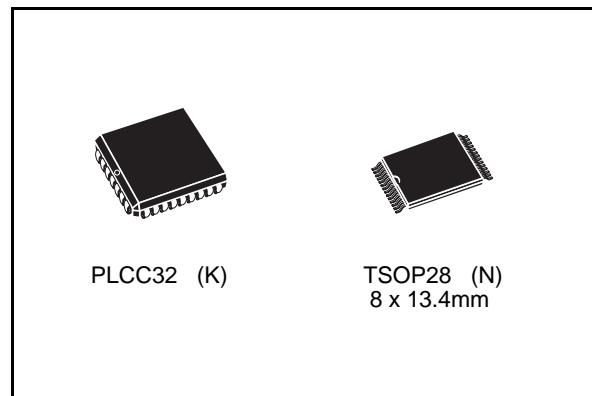




512 Kbit (64Kb x 8) Low Voltage OTP EPROM

DATA BRIEFING

- **LOW VOLTAGE READ OPERATION:**
2.7V to 3.6V
- **FAST READ ACCESS TIME:**
 - 90ns at $V_{CC} = 3.0V$ to 3.6V
 - 100ns at $V_{CC} = 2.7V$ to 3.6V
- **PIN COMPATIBLE** with M27C512
- **LOW POWER CONSUMPTION:**
 - 15 μ A max Standby Current
 - 15mA max Active Current at 5MHz
- **PROGRAMMING TIME** 100 μ s/byte (typical)
- **HIGH RELIABILITY CMOS TECHNOLOGY**
 - 2,000V ESD Protection
 - 200mA Latchup Protection Immunity
- **ELECTRONIC SIGNATURE**
 - Manufacturer Code: 20h
 - Device Code: 3Dh



DESCRIPTION

The M27W512 is a low voltage 512 Kbit EPROM offered in the OTP range (one time programmable). It is ideally suited for microprocessor systems and is organized as 65,536 by 8 bits.

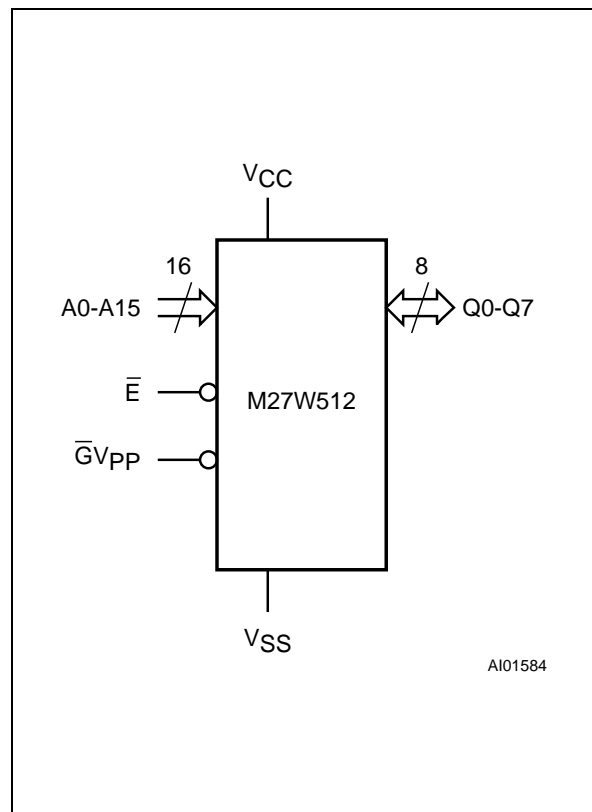
The M27W512 operates in the read mode with a supply voltage as low as 2.7V at -40 to $85^{\circ}C$ temperature range. The decrease in operating power allows either a reduction of the size of the battery or an increase in the time between battery recharges.

The M27W512 is offered in PLCC32 and TSOP28 (8 x 13.4 mm) packages.

Signal Names

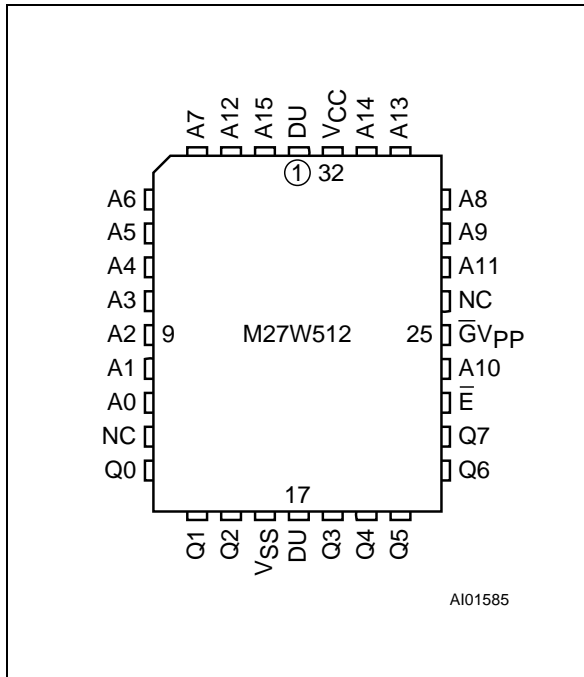
| | |
|-----------------|--------------------------------|
| A0-A15 | Address Inputs |
| Q0-Q7 | Data Outputs |
| \bar{E} | Chip Enable |
| $\bar{G}V_{PP}$ | Output Enable / Program Supply |
| V_{CC} | Supply Voltage |
| V_{SS} | Ground |

Logic Diagram

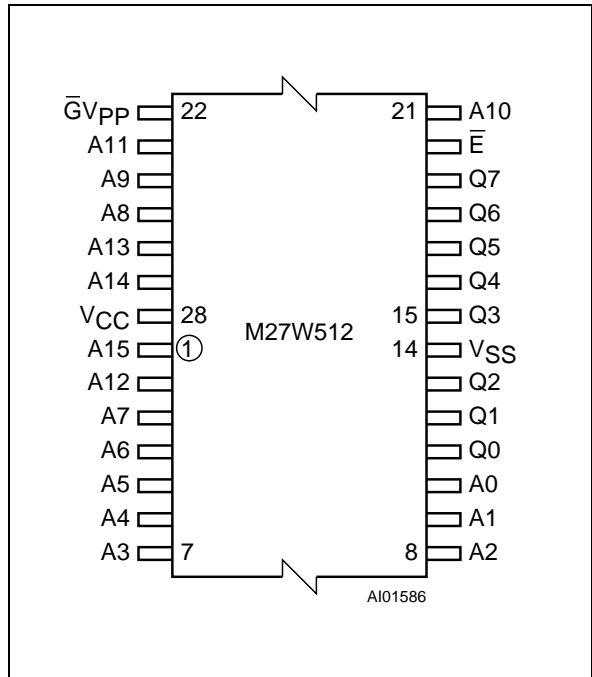


M27W512

LCC Pin Connections



TSOP Pin Connections



Warning: NC = Not Connected, DU = Don't Use

ORDERING INFORMATION SCHEME

Example: M27W512 -100 K 6 TR

| Speed | | Package | | Temperature Range | | Option | |
|-----------------------|--------|---------|----------------------|-------------------|--------------|--------|---------------------|
| -100 ^(1,2) | 100 ns | K | PLCC32 | 6 | -40 to 85 °C | TR | Tape & Reel Packing |
| -120 | 120 ns | N | TSOP28 8 x 13.4mm | | | | |

NOT FOR NEW DESIGN⁽³⁾

| | |
|------|--------|
| -150 | 150 ns |
| -200 | 200 ns |

Notes: 1. High Speed, see AC Characteristics section for further information.
 2. This speed also guarantees 90ns access time at $V_{CC} = 3.0V$ to $3.6V$.
 3. These speeds are replaced by the 120ns.

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.