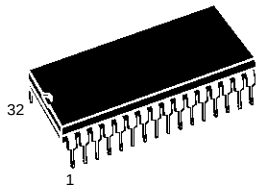
SGS-THOMSON MICROELECTRONICS

# M27C405

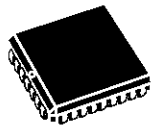
## 4 Megabit (512K x 8) OTP EPROM

**DATA BRIEFING**

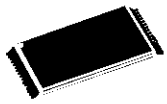
- PIN COMPATIBLE with the 4 MEGABIT, SINGLE VOLTAGE FLASH MEMORY
- FAST ACCESS TIME: 70ns
- LOW POWER "CMOS" CONSUMPTION:
  - Active Current 30mA at 5MHz
  - Standby Current 100µA
- PROGRAMMING VOLTAGE: 12.75V
- ELECTRONIC SIGNATURE for AUTOMATED PROGRAMMING
- PROGRAMMING TIMES
  - Typical 48sec. (PRESTO II Algorithm)
  - Typical 27sec. (On-Board Programming)




PDIP32 (B)



PLCC32 (K)



TSOP32 (N)
8 x 20mm

### DESCRIPTION

The M27C405 is an high speed 4 Megabit One Time Programmable EPROM, organised as 524,288 by 8 bits. It is ideally suited for microprocessor systems requiring large programs, in the application where the contents is stable and needs to be programmed only one time.

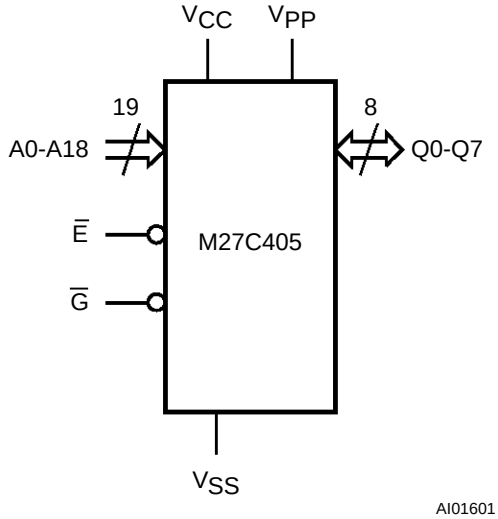
The M27C405 is pin compatible with the industry standard 4 Megabit, single voltage FLASH Memory. It can be considered as a FLASH Low Cost solution for production quantities.

The M27C405 is offered in Plastic Dual-in-Line, Plastic Leaded Chip Carrier and Plastic Thin Small Outline packages.

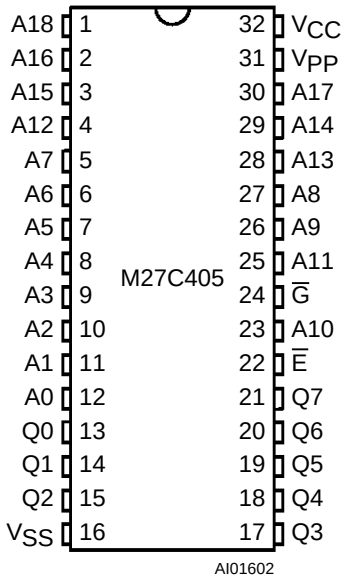
### Signal Names

| | |
|---|---|
| A0 - A18 | Address Inputs |
| Q0 - Q7 | Data Outputs |
| $\overline{E}$ | Chip Enable |
| $\overline{G}$ | Output Enable |
| $V_{PP}$ | Program Supply |
| $V_{CC}$ | Supply Voltage |
| $V_{SS}$ | Ground |

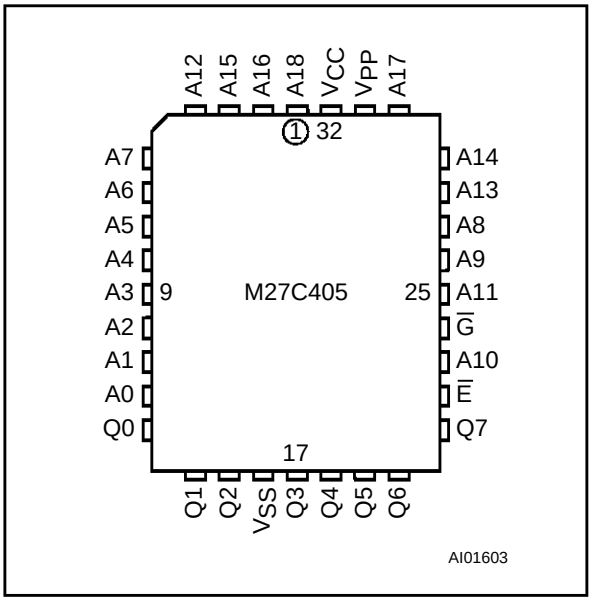
### Logic Diagram



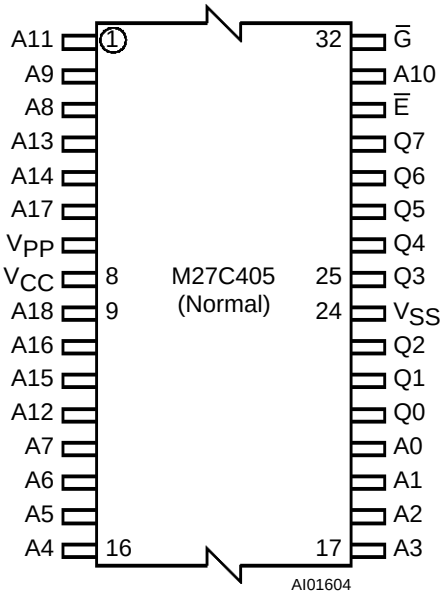
### DIP Pin Connections




### LCC Pin Connections




### TSOP Pin Connections




### Ordering Information Scheme

For a list of available options refer to the current Memory Shortform catalogue.
For further information on any aspect of this device, please contact the SGS-THOMSON Sales Office nearest to you.

Example: M27C405 -80 K 1 TR

**Speed**

| | |
|---|---|
| -70 | 70ns |
| -80 | 80ns |
| -90 | 90ns |
| -100 | 100ns |
| -120 | 120ns |
| -150 | 150ns |

**Package**

| | |
|---|---|
| B | PDIP32 |
| K | PLCC32 |
| N | TSOP32 8 x 20mm |

**Temp. Range**

| | |
|---|---|
| 1 | 0 to 70 °C |
| 6 | –40 to 85 °C |

**Option**

| | |
|---|---|
| TR | Tape & Reel Packing |