



# CAT25C02/04/08/16/32

## 2K/4K/8K/16K/32K SPI Serial CMOS E<sup>2</sup>PROM

### FEATURES

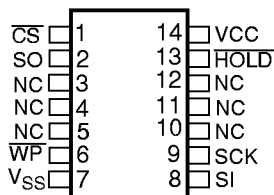
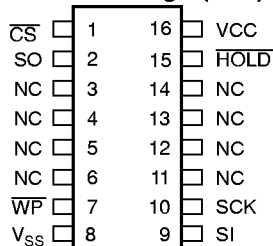
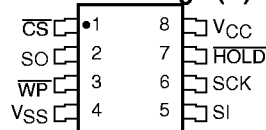
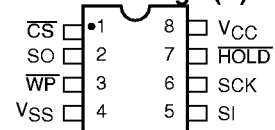
- 10 MHz SPI Compatible
- 1.8 to 6.0 Volt Operation
- Hardware and Software Protection
- Zero Standby Current
- Low Power CMOS Technology
- SPI Modes (0,0 & 1,1)
- Commercial, Industrial and Automotive Temperature Ranges
- 1,000,000 Program/Erase Cycles
- 100 Year Data Retention
- Self-Timed Write Cycle
- 8-Pin DIP/SOIC, 16-Pin SOIC and 14-Pin TSSOP
- Page Write Buffer
- Block Write Protection
  - Protect 1/4, 1/2 or all of E<sup>2</sup>PROM Array

### DESCRIPTION

The CAT25C02/04/08/16/32 is a 2K/4K/8K/16K/32K-Bit SPI Serial CMOS E<sup>2</sup>PROM internally organized as 256x8/512x8/1024x8/2048x8/4096x8 bits. Catalyst's advanced CMOS Technology substantially reduces device power requirements. The CAT25C02/04 features a 16-byte page write buffer. The 25C08/16/32 features a 32-byte page write buffer. The device operates via the SPI bus serial interface and is enabled through a Chip Select ( $\overline{CS}$ ). In addition to the Chip Select, the clock

input (SCK), data in (SI) and data out (SO) are required to access the device. The  $\overline{HOLD}$  pin may be used to suspend any serial communication without resetting the serial sequence. The CAT25C02/04/08/16/32 is designed with software and hardware write protection features including Block Lock protection. The device is available in 8-pin DIP, 8-pin SOIC, 16-pin SOIC and 14-pin TSSOP packages.

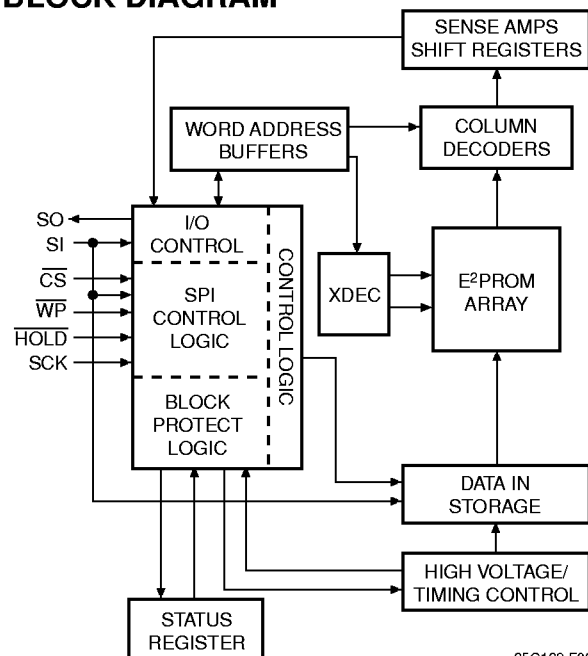
### PIN CONFIGURATION

**TSSOP Package (U14)****SOIC Package (S16)****SOIC Package (S)****DIP Package (P)**

### PIN FUNCTIONS

Pin Name	Function
SO	Serial Data Output
SCK	Serial Clock
WP	Write Protect
V <sub>CC</sub>	+1.8V to +6.0V Power Supply
V <sub>SS</sub>	Ground
$\overline{CS}$	Chip Select
SI	Serial Data Input
$\overline{HOLD}$	Suspends Serial Input
NC	No Connect

### BLOCK DIAGRAM



25C128 F02