

## Features

- Low-voltage and Standard-voltage Operation
  - 1.8 ( $V_{CC} = 1.8V$  to 5.5V)
- Internally Organized 512 x 8 (4K), or 1024 x 8 (8K)
- Two-wire Serial Interface
- Schmitt Trigger, Filtered Inputs for Noise Suppression
- Bidirectional Data Transfer Protocol
- 1 MHz (5V), 400 kHz (1.8V, 2.5V, 2.7V) Compatibility
- Write Protect Pin for Hardware Data Protection
- 16-byte Page (4K, 8K) Write Modes
- Partial Page Writes Allowed
- Self-timed Write Cycle (5 ms max)
- High-reliability
  - Endurance: 1 Million Write Cycles
  - Data Retention: 100 Years
- 8-lead PDIP, 8-lead JEDEC SOIC, 8-lead Ultra-Thin Mini-MAP (MLP 2x3), 5-lead SOT23, 8-lead TSSOP and 8-ball dBGAA2 Packages
- Lead-free/Halogen-free
- Die Sales: Wafer Form and Tape and Reel

## Description

The AT24C04B/08B provides 4096/8192 bits of serial electrically erasable and programmable read-only memory (EEPROM) organized as 512/1024 words of 8 bits each. The device is optimized for use in many industrial and commercial applications where low-power and low-voltage operation are essential. The AT24C04B/08B is available in space-saving 8-lead PDIP, 8-lead JEDEC SOIC, 8-lead Ultra-Thin Mini-MAP (MLP 2x3), 5-lead SOT23, 8-lead TSSOP, and 8-ball dBGAA2 packages and is accessed via a Two-wire serial interface. In addition, the AT24C04B/08B is available in 1.8V (1.8V to 5.5V) version.

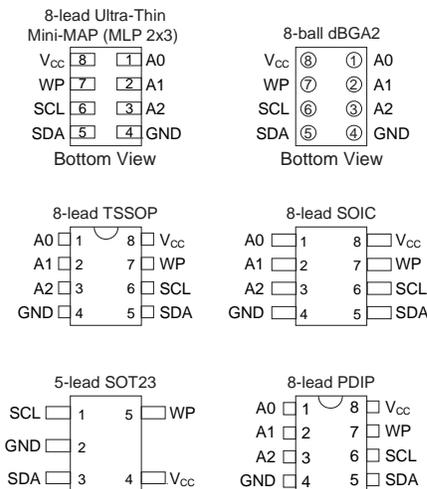
Figure 1. Pin Configurations

Pin Name	Description
A0 – A2	Address Inputs
SDA	Serial Data
SCL	Serial Clock Input
WP	Write Protect
NC	No Connect
GND	Ground
$V_{CC}$	Power Supply

**Note:** For use of 5-lead SOT23

**4K:** The software A2 and A1 bits in the device address word must be set to zero to properly communicate.

**8K:** The software A2 bit in the device address word must be set to zero to properly communicate.



**Two-wire  
Serial EEPROM**  
4K (512 x 8)  
8K (1024 x 8)

**AT24C04B  
AT24C08B**

**Not Recommended  
for New Design.  
Replaced by  
AT24C04C or  
AT24C08C.**

