### Features

- MultiMediaCard (MMC) Form Factor
- Single 2.7V to 3.6V Supply
- 66 MHz Max Clock Frequency
- Serial Peripheral Interface (SPI) Compatible
- Low Power Dissipation
  - 10 mA Active Read Current Typical
    - 25 µA CMOS Standby Current Typical
- Industrial Temperature Range
- Pb-free/RoHS-compliant Package

## 1. Description

The AT45DCB008D, AT45DCB004D and AT45DCB002D are 2.7-volt only SPI compatible serial interface DataFlash<sup>®</sup> Cards. They are offered in 8-megabyte (64-Mbit), 4-megabyte (32-Mbit) and 2-megabyte (16-Mbit), densities. These 7-pin cards are form factor compatible to the MultiMediaCard standard leveraging on a wide range of low cost connectors that are commercially available. Additionally, the DataFlash Card is pinout compatible to the SPI version of the MMC card.

The small form factor and simple interface make the DataFlash Card ideal for a wide variety of data- and program code-storage applications where a removable storage medium is required. Applications range from voice/audio, text or image storage to software applications, system upgrades and software patches.

For detailed device specifications, please refer to the corresponding DataFlash datasheets:

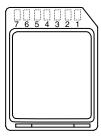
- AT45DCB008D reference AT45DB642D
- AT45DCB004D reference AT45DB321D
- AT45DCB002D reference AT45DB161D

| Table 1-1. Pin Configuration |
|------------------------------|
|------------------------------|

| Pin # | Pin Name | Function      |  |
|-------|----------|---------------|--|
| 1     | CS       | Chip Select   |  |
| 2     | SI       | Serial Input  |  |
| 3     | GND      | Ground        |  |
| 4     | VCC      | Supply        |  |
| 5     | SCK      | Serial Clock  |  |
| 6     | NC       | No Connect    |  |
| 7     | SO       | Serial Output |  |
|       |          |               |  |

Figure 1-1.

DataFlash Card - Top View





8-megabyte, 4-megabyte, and 2-megabyte 2.7-volt Only DataFlash<sup>®</sup> Cards

# AT45DCB008D AT45DCB004D AT45DCB002D

3607E-DFLASH-01/08





## 2. Ordering Information

| f <sub>scк</sub> | I <sub>cc</sub> ( | (mA)    |   |                     |                                 |
|------------------|-------------------|---------|---|---------------------|---------------------------------|
| (MHz)            | Active            | Standby | Ordering Code                             | Package             | <b>Operation Range</b>          |
| 66               | 15                | 0.05    | AT45DCB008D<br>AT45DCB004D<br>AT45DCB002D | 7DF1 <sup>(1)</sup> | Industrial<br>(-40° C to 85° C) |

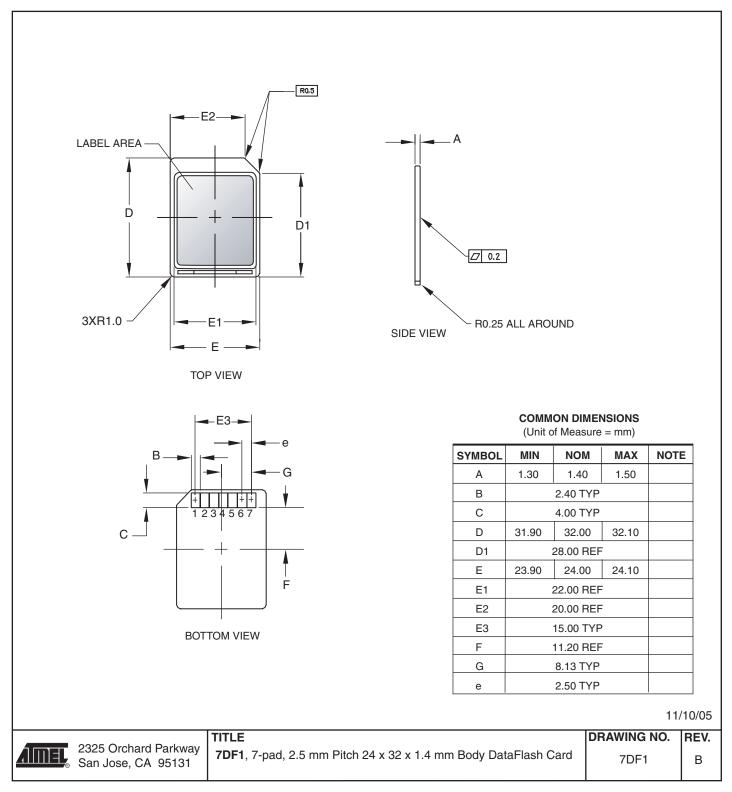
Note: 1. The 7DF1 is a Pb-free/RoHS-compliant package.

| Package Type |   |  |
|--------------|---|--|
| 7DF1         | 7-lead, 2.5 mm Pitch 24 x 32 x 1.4 mm Body DataFlash Card |  |

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### 3. Packaging Information

### 3.1 7DF1 – DataFlash Card







## 4. Revision History

| <b>Revision Level Revision Date</b> | History  |
|-------------------------------------|--|
| A – November 2005                   | Initial release  |
| B – March 2006                      | Added text to indicate that DataFlash cards are Pb-free        |
| C – April 2006                      | Added text to indicate that DataFlash cards are RoHS compliant |
| D – July 2007                       | Added AT45DCB001D part number.                                 |
| E – January 2008                    | Removed AT45DCB001D part number.                               |

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